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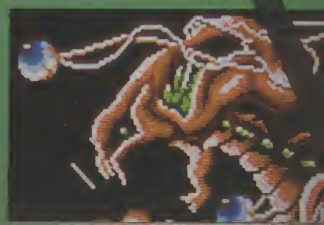


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# ACE

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## OPERATION WOLF

FIRST FULL REVIEW - SEE PAGE 42

A COMPANY OF WOLVES

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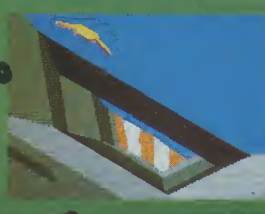
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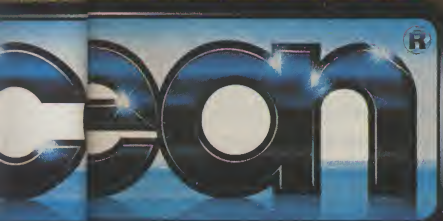
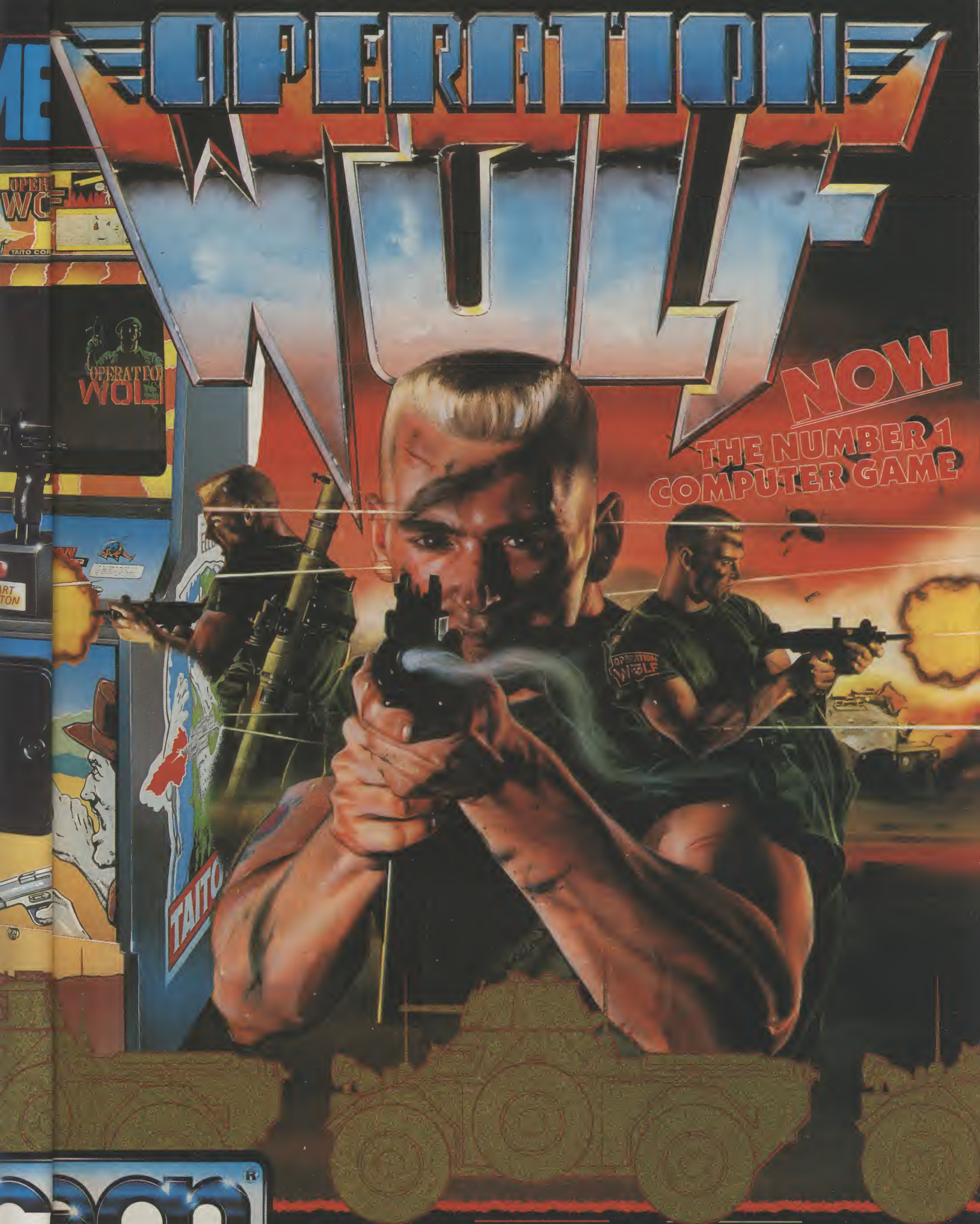
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## SPECIALS

### 26 The PC alternative

Do you really want to get an ST or an Amiga (assuming you don't have one already)? Could it be that the machine for you is actually...gasp...a PC? ACE takes a close look at the IBM hardware spec and asks whether this could be the games standard of the 1990s.



### 32 Playing games with IBM

If you bought Amstrad's PC200, what would you have to play with? Having checked out the hardware, we take a close, critical look at PC-games.

### 36 It's a rip-off!

...or is it? Clone software is threatening the future of licensed games. Whatever their legal status, angry protests have recently forced the withdrawal of *Katakis* and *The Great Giana Sisters*. Who's next?

### 119 The ACE Fido awards

We've seen some turkeys in our time, but these games really take the biscuit. ACE institutes the Fido awards for those rare titles that aspire to unique standards of awfulness. Keep your sick bag handy...



### 94 Get smart

Andy Wilton calls out for a new kind of game – one that **bites back** (and **doesn't** go woof!).

### 84 Radiant Role-play?

*Pools of Radiance* attempts to encapsulate the AD&D experience in an a computer game. Does it succeed?



# ACE

### 114 Play your ace!

We've got some goodies to give away to those who've got the guts to tell us what they really think about ACE, life, the universe, and games software. If you want a real say on what goes in the mag, this is your chance.

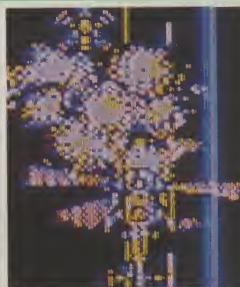
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The biggest secret at the PC Show was a new machine that could change our ideas about consoles. Get your ear to the ground...

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The ultimate fighting machine? *Thunderblade* flies in from the arcade,, and is due to land soon...

### 107 Letters

The burning issues of today, discussed by the people who matter – you.

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After 170 pages, you need a rest. This isn't it...

## SIGHT...

Brian Larkman checks out the new picture-making products at the PC Show, visits the people behind *Knightmare*, and assesses the PC's capabilities as a graphics terminal.

## .....AND SOUND

### 109 Jean Michel Jarre and chips

Just what sort of hardware do you need to produce *Equinoxe* and a string of other hits? Mark Jenkins investigates.

## GAMEPLAY

### 41 Screen Test

*Operation Wolf* stalks this month's pages; R-Type blasts in, *Rocket Ranger* takes off, and what should you stake on *Joan of Arc*? We **play the games**, you get the **verdict**.



Page 42: *Operation Wolf* – how much bark and how much bite?

### 90 Arcade ACE

When it comes to 3D realism, *The Last Apostle Puppet Show* is something else...plus *Forgotten Worlds*, *Gangbusters*, and *POW*.



Kung fu puppets pull the strings in *The Last Apostle Puppet Show*.

### 127 Tricks 'N' Tactics

The **complete solution** to *Starglider II* and a map of *Barbarian II*, not to mention *Elite* tips for ST owners and host of other tips and pokes.



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## BUY LINES

### 15 The Ace Card



Win an Amiga! Plus dozens of other free gifts every month in the great ACE giveaway.

### 11 The ACE Competition

It's not every month you get a chance to win a prize like this... **Like what?** we hear you cry. Look for yourself – we're not here to spoonfeed readers y'know.

### 116 Special Offers

OK – you're mean, lazy, and fussy. Too mean to pay full price for your games, too lazy to go to the shops, and too fussy to play anything but top-notch games. These pages, with great titles at up to £4 off, were made for you.

### 115 Subscription

A subscription to ACE puts you at the front of entertainment technology AND gives you the chance to recover your whole subscription charge by ordering US Gold games at half price. Go for it!

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### 139 Buyer's Guide

This month's round-up of recommended titles pinpoints the best puzzle and brain games you can buy. It's all part of ACE's monthly service to help you save money by buying only tried, tested, top-quality software.

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The machines, the facts, and the prices to help you make that crucial upgrade decision presented in at-a-glance form.

### 151 Random Access

ACE goes ape with N'Gar Thrombobo, the ACE prize crossword, prize puzzle, and other totally mindless diversions that should keep you busy till the next issue.

### 165 Reader's Pages

Small ads, big business. ACE readers make deals, offer help on adventures, sell hardware, seek penpals, and form user groups. The hustle of the marketplace in the peace of your living room, brought to you by...you.

# PLAYING SAFE?

The whole future of computer entertainment could depend on what happens next. Household name Amstrad have taken no risks by launching a cut-price, unexciting PC compatible aimed at the home market. Meanwhile, a little known hardware firm are taking a terrifying risk with a high-power, completely non-standard console. They'll both want support from the UK's software houses over the next six months – but who's going to get it?

There's a lot more riding on this than just the bank accounts of the two firms involved. The micro scene is crawling with new-age machines – technical wonders like the Acorn Archimedes, Atari ABAQ and Flare One – that can't quite seem to break the stranglehold of compatibility. This month ACE sizes up the opposing forces: how does the incredible power of modern custom silicon stack up against the PC's safety in numbers? Is there still money in being original, or do people just want more of the same?

Originality's not just a hardware issue of course. On the software side of things, cloning can mean big business and even bigger trouble. Do you know your *Ramparts* from your *Rampage*? Can you tell the difference between *Road Blasters* and *Overlander*? Check out our expose of copycat games, and find out why the big software houses *don't* think imitation is the sincerest form of flattery.

Oh, and while we're on the subject, take a look at the ACE masthead (that's the box directly below this one). Notice anything different? In the spirit of originality, we've got ourselves a new editor. Graeme Kidd first wrote for us way back in issue 4, but now we've got his awesome experience and encyclopaedic games knowledge on our side full time. Just as well now that Production Editor Rod Lawton has moved over to work on our startlingly innovative sister publication New Computer Express. We're still looking for a new full-time staff writer, by the way, so if you think you cut the crumpet, write to us and tell us why. You should be over 18, know games backwards, and be able to express yourself well using the written word. Go for it!

## The Ace Team.

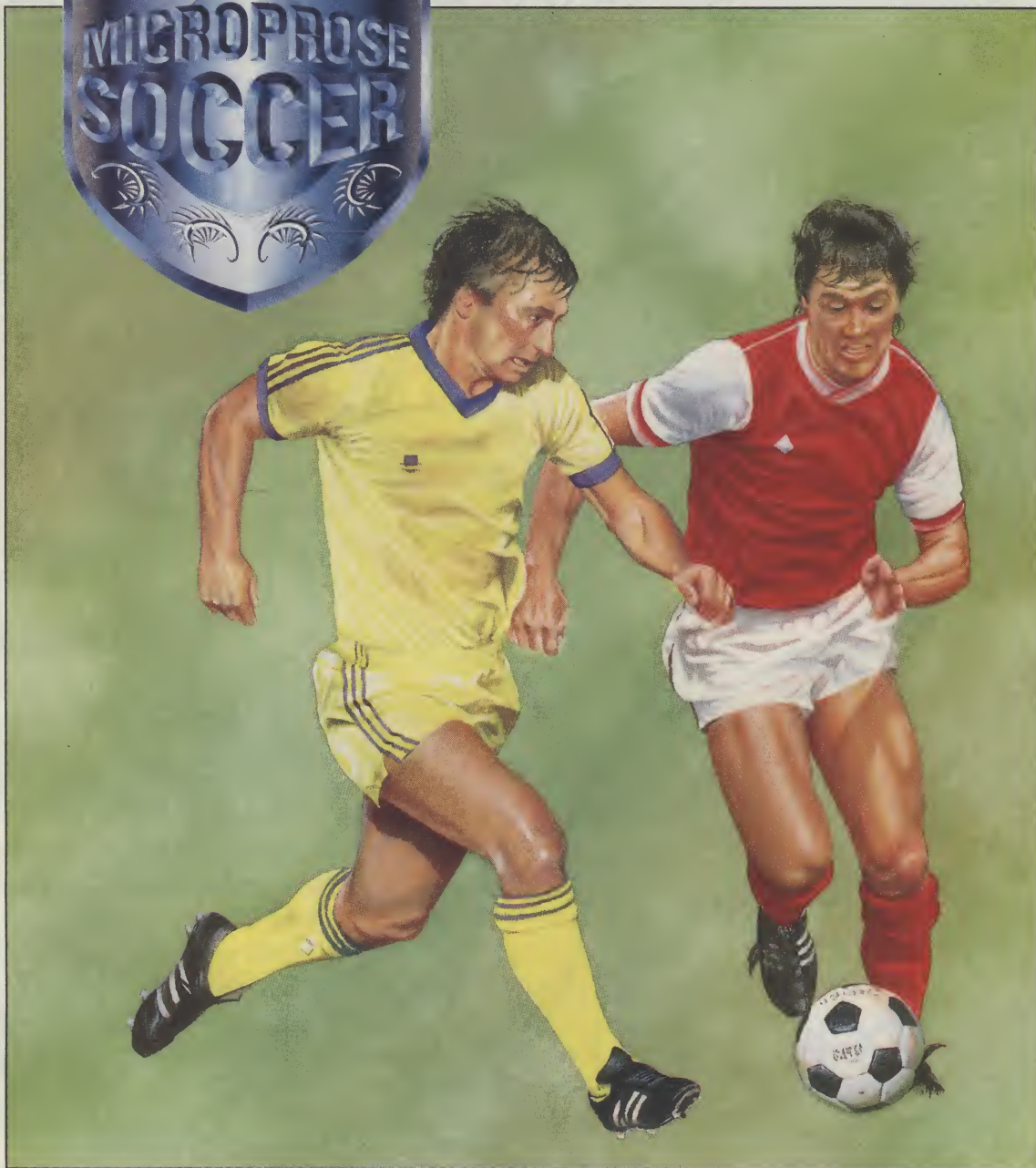
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**Overall winner: the WIRED title sequence, designed by Matt Forrest and produced by David Botterell of Snapper Films. Computer animation by Digital Pictures Ltd.**

## GRAPHICS UNLIMITED

■ Matt Nicholson reports from the Computer Animation Film Festival



**C**omputer animation is an expensive business, and the Computer Animation Film Festival – held in Wembley on 11th October – was dominated by the flying logos and flashy advertisements of the companies that can afford it. Here was the Smarties ad and the Crest toothpaste 'Sparkle Singers', but in amongst them was some genuinely inspiring and innovative work.

It soon became obvious that last year's winner 'Luxor' had set a style that appealed to advertisers, so it was the Students section that proved the most

innovative with four entries from the US (this is an international festival) against just one from the UK. From MIT came 'Cootie Gets Scared', Cootie being a little six-legged creature that has been endowed with some of the latest AI techniques, so that the animator can leave the creature to work out what it would do in the next frame. Another entry had been animated by a Cray X-MP, possibly the most powerful computer in the world, and no prizes for guessing it wasn't ours!

It also became obvious that the judges were looking for something a bit different this time round: winner of the Features & Shorts section went to 'Technological Threat' which used computers to generate characterisations straight out of those Chuck Jones shorts drawn 40 years ago. An award could also have gone to Apple Computer here, whose 'Pencil Test' was created solely on its Mac II micro – rather than on the £50,000-plus machines usually employed.

After some rumination, during which an experimental sequence from the Walt Disney labs was given an exclusive showing, it was announced that the title sequence from Channel Four's 'Wired', by Digital Pictures, was judged the overall winner. And so it should be, as it shows what can be achieved in a commercial environment.

## SHOW NEWS

**T**he 20th Electron and BBC Micro User Show runs from November 11th to 13th, and if you find the Archimedes an interesting machine, a trip to the New Horticultural Hall, Greycoat Street, London could pay dividends – visit the wittily-named 'Wonderful World of the Archimedes' section and be amazed. Atari owners may prefer a trip to Alexandra Palace for the Atari Show which runs from 25th-27th November in the West Hall, while owners of Commodore machines will find plenty of interest at the Commodore show, running in the Novotel, Hammersmith, between 18th and 20th November. Further details from Database Exhibitions, on 0625 878888.

## NAVIGATION AND DENIAL...

**W**elsh hardware wizards Konix, makers of the mega-selling Speedking joystick, are set to release a pair of products that should make the games-playing world a happier place to inhabit.

Official confirmation is available for the release of the Konix Navigator, a joystick which Konix claim looks and feels even better than the Speedking. "The Speedking is a tough act to follow", commented Sandra Holloway one of Konix's Directors, "and we wanted to be sure that we excelled ourselves with the Navigator" she continued. Designed to fit snugly in either hand, the Navigator contains microswitch-based innards and should be available in your local computer shop as you read this, priced at £14.99.

While happy to wax on enthusiastically about their new joystick, Konix are at pains to deny rumours of a new games console apparently due for launch in the middle of next year. "Console, what console" was about as far as Konix supremo Wyn Holloway was prepared to go when quizzed, but here on ACE we're pretty certain that Nintendo and Sega will find themselves getting a good run for their money in the console market during 1989.

While confirmation for the rumoured console is high



**An officially acknowledged Konix product - the Navigator, in Artist's Impression form...**

impossible to obtain, clearly Konix are preparing to launch a major product of the console variety next year. The 'console that doesn't exist' is set to be a thoroughly amazing piece of hardware packed with custom chips that will give the user more than the computing power of machines such as the Amiga, and will cost about as much as the Spectrum +3.

Expect very, very fast

# ACE IN NEWS

ADVANCED COMPUTER ENTERTAINMENT

graphics and sound like you've only ever previously heard coming out of a dedicated synthesiser. And expect to be playing some amazing games on a Konix-backed console by the middle of next year. Software won't be exclusively cartridge-based, and a variety of interesting peripherals are likely to be released to complement the basic unit. (Much more in the way of controllers than Speedkings or Navigators.)

Despite the fact that the console 'doesn't exist', a number of leading software houses appear to be engaging in intense discussions with Konix. Maybe they're just working on a programmable joystick...? We know otherwise.



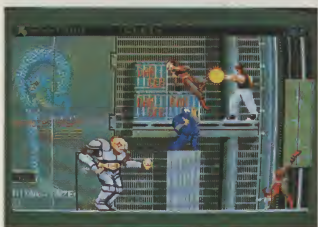
## ACE ON THE ROAD

**M**anchester. Home of The Smiths, Granada Television and long-standing software house Ocean. The ACE team jumped in the staff BMW (for BMW read 2CV) and headed up the M6 to see what the Mancunian Big Boys were going to be releasing on an unsuspecting games playing public this Christmas... and early next year.

The official version of the Taito coin-op hit Operation Wolf (reviewed this issue) is the first game due in the shops, and will be swiftly followed by another conversion of a coin-op hit, this time Data East's Bad Dudes Versus Dragon Ninja (which must be



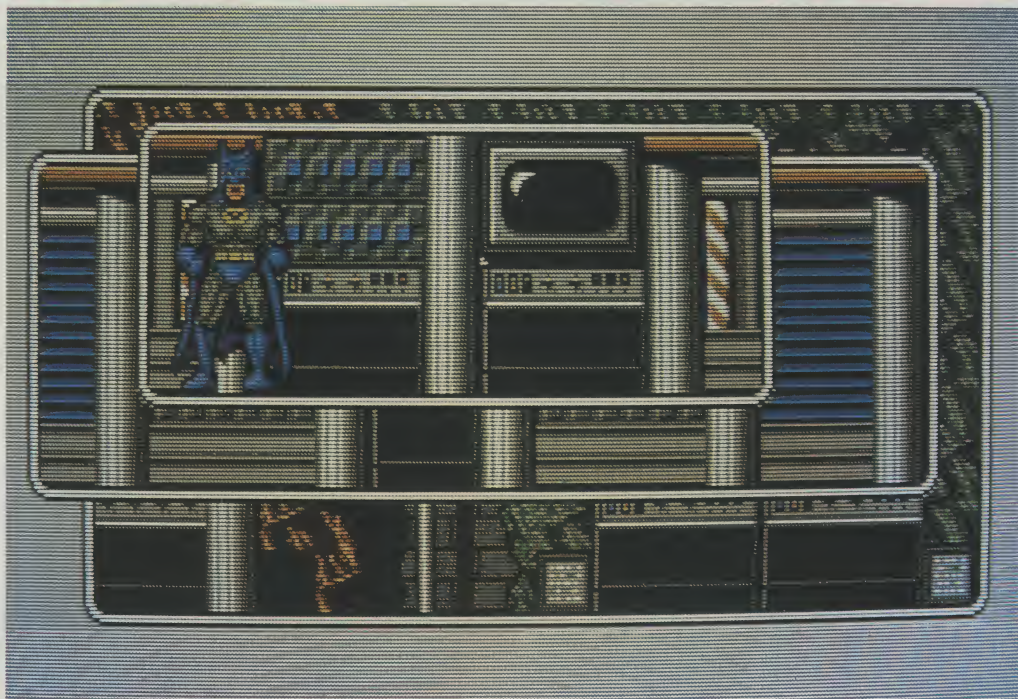
This early shot shows you the kind of graphics you can expect in Dragon Ninja for the Amiga.



Another screen from Dragon Ninja. That's the girl taken care of, but the big guy at the bottom looks tough

in the running for the 'worst game name of the year' award). Because it's such a mouthful it's not surprising Ocean have shortened the name to plain ol' Dragon Ninja. The game is a horizontally-scrolling beat-em-up in which you have to work your way through hordes of baddies (male and female) by punching and kicking them to oblivion. If you're lucky you might be able to pick up a dagger or sword to make your job easier.

And the Ocean licences don't stop at coin-ops. If you were to learn they were developing a game based on the character Batman, you'd probably think you were reading a magazine that's some two or three years old. But no – not content with producing a superb isometric 3D puzzler written by Jon Ritman, Ocean are currently working on another, new, arcade adventure game based on the Caped Crusader. The game has a strong 'comic book' feel and though the plot(s) haven't been finalised, you'll be controlling Batman and



Batman ready for action. Note the window upon window display that gives the feel of the comic book original.

confronting some of his arch enemies, like The Penguin and The Riddler. Expect plenty of puzzles and objects to collect and manipulate (store them in your Bat Utility Belt!). In keeping with the Batman image, no-one will actually get killed in the game.

Continuing the licence theme, Ocean are also working on the micro versions of two recent cult films, Robocop and Rambo III. Robocop's due on the 8-bit machines just before Christmas with the 16-bit versions following in the New Year. An arcade version of the game is also being developed by coin-op company Data East and although Ocean may be incorporating features of the coin-op, their version of Robocop won't be a straight conversion, but a game that follows the plot of the film closely – including a confrontation with the impressive ED209.



Robocop slugging it out on the Spectrum with the ED209.

Rambo III also follows the film plot and as John Rambo it's down to you to rescue Colonel Trautman who has been captured by the Russians in Afghanistan. Playing with a point-of-view perspective, you see things



Orion's Belt on the ST showing the cockpit view of a strange alien structure – should you blow it up or ask it to take you to its leader?

through Rambo's eyes and have to negotiate minefields, lay boobytraps and search a Russian camp, blowing away soldiers and anything else that moves while you do it. Unlike Batman, Sylvester Stallone's image is far from bloodless, so action fans will find plenty to keep them happy.

Ocean's next original product looks set to be a solid 3D strategy/shoot-em-up tentatively called Orion's Belt for development purposes. Mike Crowley and Danny Gallagher, who used to work with Vector Graphics Ltd (Star Wars and Empire Strikes Back) are the men behind Orion. Appearing on the ST and Amiga only, your mission to wipe out aliens will contain at least ten levels – each one set on a different

moon around Saturn. The action is viewed from the cockpit and you'll have over 60 robotic adversaries to contend with, all presented in stunning solid 3D animation. It won't all be all blasting however: expect to contend with puzzles to get extra weapons and equipment for your vehicle, and part of the action will take place in underground mine complexes.

It looks like games players country wide are going to be in for some late nights in front of their monitors over the coming months, courtesy of Ocean. Perhaps The Smiths were thinking of Ocean when they said 'Manchester, so much to answer for'. Tired trigger fingers all round...



## MMM! IT'S DANISH...

**D**anish software development teams have been making a strong pitch for business recently, with the most notable example being *Swords of Sodan*, a horizontally-scrolling hack'n'slash scenario with very large animated figures. Although actually produced in the States, demos of this game were up and running in Denmark long before anyone here saw it. So were versions of *Afterburner*, *Katakis*, and *Amiga Virus*. What's going on?

Anyone visiting Denmark soon wakes up to two facts. First, the Danish are computer-crazy or, more specifically, Amiga crazy. Commodore have really cleaned up in Denmark, first with the C64 and now not only with the Amiga but also with their PC's. It's an odd feeling to walk into a computer store selling 8- and 16-bit computers plus PC clones and see nothing but Commodore hardware, but you can do it in Denmark.

This concentration on a single manufacturer has bred a huge community of enthusiasts, all working on the same machines. The result? A vast network of...gulp...pirates.

And that's the second thing you notice in Denmark – all those games you've heard about but haven't yet been released in the UK are up and running in everybody's bedrooms in pirated versions. There's nothing secret about it – just check out any old classified ad column (like the one shown here, taken from a well-known Danish newspaper) and you'll see dozens of ads for pirated software at absurd prices – often as low as £1, including the disk!

So it was that we saw *Swords of Sodan* demoed, plus the other titles mentioned above – fully playable versions of *Katakis*, *Afterburner*,

*Rocket Ranger*, and *Virus*. Yeah, but everyone's seen all these games, we hear you cry. Oh yes? On the Amiga?? Sure thing, bud, these were all full-blown Amiga versions at budget Spectrum prices...

### FALLING BEHIND

If some of you out there are misguided enough to think that the Danes are onto a good thing, just consider the following. No British software house is ever going to bother setting up in Denmark and producing proper Danish versions of software. In fact no software company with any sense at all is going to even ship its product out there. There are a couple of Danish distributors representing some UK and American software houses, but so far no-one deals direct. With piracy like that, it's hardly surprising. In the long term, the Danes are going to be left with bacon and precious little else.

If you think we're exaggerating, consider this: a good Danish computer magazine sells around 20000 copies. A good game in Denmark sells...wait for it...around 200 copies. No prizes for guessing why...

While ACE sampled the Danish beer and chatted with the hackers, one thing emerged quite clearly. None of them thought they were doing anything wrong – on the contrary, they were quite proud of their efforts – and all of them blamed the Danish Government, who put a 200% import tax on software and other items, making the real thing virtually unaffordable.

Under those circumstances, it's difficult not to be, at the very least, understanding...and it's certainly NOT difficult to guess why these same lads are looking for other countries to publish their games in!



## THE MUNSTERS RIDE AGAIN AGAIN

**A**lternative Software have launched a new label, Again Again, producing full-price games across all formats. First release is to be *The Munsters*, based on the aged TV serial currently being revived on Channel 4.

Programmers Harrah and Hollingworth, previously responsible for Grand Slam's *Terramex*, are leading the Teque coding team on this one, which gives Granpa, Herman, Lilly, and Eddie the chance to flex their limbs in an arcade-style environment.

Again Again will also be producing a game written by Durell, of *Combat Lynx* fame, for which story see opposite.

*Operation Hormuz* is an aircraft carrier scenario set in the Middle East where you must destroy 7 enemy bases using the F16 planes at your disposal. In addition to dodging the anti-aircraft missiles, there are also opportunities for air-to-air combat. The game will be released for Spectrum, Amstrad, C64, PC, and ST later this year. If it's as good as *Combat Lynx* was in its day, it should be worth watching out for...

## DOMARK GET ATARI COIN-OPS

**T**he terrible twins have scooped a very impressive licensing deal with Atari, giving Domark the rights to produce all Atari's coin-op titles over the next three years. That could mean as many as twenty big releases to follow *Star Wars* and *The Empire Strikes Back*.

How come Domark got the job? After all, us games players are accustomed to seeing coin-op titles being auctioned off to the highest bidders, with little attention paid to the probably quality (or lack of it) of the final release.

According to the Do of Domark (Dominic Wheatley), it's all down to Atari's desire for a long-term relationship – which could mean that the big arcade companies are at last paying serious attention to us gamers at home, rather than simply off-loading their titles onto the market in a devil-may-care, give-us-

the-cash-now-chums app-roach.

So, stand by for *Vindicators*, *Zybots*, *Toobin*, *Dragonspirit*, and *APB*. Coin-op freaks will have already read up on the arcade versions of the first three titles in ACE – and will know that they're not to be sneezed at. *Dragonspirit* and *APB* have excellent reputations as well, and Domark plan to release at least another three titles in addition to the above before the end of next year. All the games will be put out under the new Atari Tengen label, recently

# TENGEN

established in the States to handle the company's coin-op conversions.

Since *The Empire Strikes Back* wasn't too bad as coin-op conversions go, this deal looks like being a Good Thing for all concerned.

These ads come from a well-known Danish newspaper and show what's available. The prices are in Danish Kroner (about 12 to the £). Pirates even offer subscriptions to customers, so they get a whole series of the latest games – often downloaded over the phone line direct from certain 'dirty databases' in the States.

06	Amiga, Infocom adventures, alle 30 på disk., m. manual disk, kr. 225.-	06 21 24 72
2 97	Amiga, Pac. mania, Street S. Basketb., Star Goose, Turbotracks, Menace Mega T., Cyberoid, Summer OL, Spider Tronic, Netherworld, Nebulus, Bundesliga Man., Rocket R., Zynaps, 25,-/stk. incl. disk.	06 44 55 55
55 93	Amiga, Rocket Ranger, Summer OL, Virus, Katakis, Platoon, Major M, Whirligig, Down at the Trolls, BoB Moran, Ring for nyhedsliste. Garanti på spillene. Henv. efter kl. 18:00. Kr. 20,-/stk. incl. disk.	05 22 02 56
0 42	Amiga, nye spil, progr., kr. 25,-, incl. diskette.	06 43 39 30
43	Amiga: synopsis, major motion, rocket ranger, bomb jack, the three stooges, alien syndrom, volleyballsimulator, platoon, hoogieboy, incl. disk, kr. 25,-/stk.	07 52 32 47
51 26	Bomb Jack, Minigolf, Zynaps, In- or, Alien Syndrom, Attack on Lon- kr. 20,-/stk.	08 25 68 69
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Gremlin

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This scrolling shoot-em-up pits you up against a host of alien attack craft and gun emplacements. Survive the gauntlet of fire and you have to fight the monster from the Pit of Despair before facing the agonising decision of whether to fuse lifeforms with your vanquished foe or face the next challenge alone. Watch out for Dark Fusion in early December.

**BUTCHER HILL**

Gremlin

Spectrum	£7.99cs £12.99dk
C64	£9.99cs £14.99dk
Amstrad	£9.99cs £14.99dk
Atari ST	£19.99dk
Amiga	£19.99dk

A three-part action game due 'real soon now', Butcher Hill begins in an inflatable dinghy. Travelling deep in a jungle, you need to collect supplies and ammunition while avoiding mines and attacks from enemy aircraft. Then a jungle maze full of mantraps and enemy soldiers has to be negotiated before the final showdown takes place in a jungle village.

**JOURNEY TO THE CENTRE OF THE EARTH**

Soft Gold

Atari ST	£19.99dk
Amiga	£24.99dk
PC	£19.99dk
C64	£14.99dk

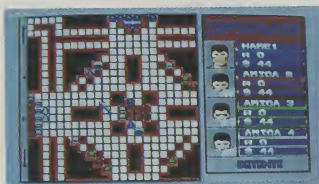
Based on the Jules Verne book, this arcade adventure requires you to travel to the Earth's core and return alive. Falling rocks, giant mammoths dangerous pterodactyls and sea snakes are just a few of the perils awaiting the intrepid explorer – zut alors!

**THE MUNCHER**

Gremlin

Spectrum	£7.99cs £12.99dk
C64	£9.99cs £14.99dk
Amstrad	£9.99cs £14.99dk

First billed as T-Wrecks, Muncher is a modified version of a program Gremlin were planning to release before they signed a deal with the manufacturers of Chewits. Now the cute monster from the Chewits TV ads is the hero and the action takes place in Japan. Explorers have stolen your eggs, and you want them back... A real gobstopper of a game.

**Muncher****ESPIONAGE**

Grandslam

Atari ST	£19.95dk
Amiga	£19.95dk
PC	£19.95dk
Spectrum	£8.95cs £14.95dk
Amstrad	£8.95cs £14.95dk
C64	£8.95cs £14.95dk
MSX	£8.95cs

This one to four player board game conversion takes you into the devious world of industrial espionage. The playing area represents the World's capitals, airports, deserts and so on, and each player has to rush around collecting micro-films that contain details of The Ultimate Weapon. A really nasty player could forget about the micro-films and concentrate on bumping off enemy agents. If the dangerous world of Smiley and his people gives you a thrill, watch out for this one... available soon.

**ENCYCLOPAEDIA OF WAR: PART 1 ANCIENT BATTLES**

CCS

Spectrum	£14.95cs £14.95dk
Amstrad	£14.95cs £19.95dk
PC	£24.95dk

Ancient battles is a one or two player wargame from the author of Arnhem and Vulcan, R.T.Smith, that simulates pitched battles in ancient times. Armies from the earliest times up to the fall of the western Roman Empire are offered, and

players choose an army then design the terrain over which battles are to be fought. Could prove a real challenge to Universal Military Simulator, but then UMS II is on the way so wargamers will have to wait while the two programs fight it out...

**DUGGER**

Linel

Amiga	£29.95dk
Atari ST	£24.95dk

Herbie Stone is back. In his latest adventure, the star of Crack is in a desperate race to catch the stonecrushers and dragons who terrorise his underground lair. To defeat the marauders, he has to attach his inflator to the monsters and pump them up until they go pop. Look out for Herbie in the New Year.

**DRAGONSLAYER**

Linel

Amiga	£29.95dk
Atari ST	£24.95dk

**(provisional prices)**

Despite the title, this arcade adventure has no relationship with the classic books. Featuring some 600 screens and over 50 fully-



animated enemies and boobytraps, the quest involves finding and assembling the parts of a magic medallion and then confronting an evil dragon who is the cause of all the problems in the land. Dragonslayer should be in the shops at the start of January.

**NAVY MOVES**

Dinamic

Spectrum, C64, Amstrad,	
Atari ST, PC	

**(all prices to be announced)**

As the name suggests, this follow up to Army Moves is set in and around the ocean. Starting out in a dinghy, you have to jump waves and avoid aquatic motorbikes before donning scuba gear to penetrate the enemy base Pinch a mini-sub, navigate another underwater cavern crammed with killer octopi and you're onto the second load. The aim of the mission is to capture and destroy a nuclear submarine, and the second stage takes place in traditional arcade adventure style amongst the platforms and ladders of the sub. Wonder if Dinamic will have a gorgeous, pouting frogman on the cover of this one?

**SPITTING IMAGE**

Domark

Spectrum	£9.95cs £14.95dk
C64	£9.95cs £12.95dk
Amstrad	£9.95cs £14.95dk
Atari ST	£19.95dk
Amiga	£19.95dk

Hands up who remembers Domark's old game called Splitting Images? You know, the one they renamed Split Personalities? Well, now Domark are set to release the official Spitting Image game starring some of those wacky puppets. This potentially hilarious licence has to be one of the strangest yet for a computer game. The Walking Circles (ex Design Design) crew are putting the finishing touches to the game as we write, so expect to see it in the shops before Christmas.





## THE RULES

1. Employees of Future Publishing Ltd, Infogrames, and their families are not eligible for entry
2. The closing date is 1st December 1988
3. The decision of the judges is final and no correspondence will be entered into.
4. Only one entry per household
5. No purchase of ACE magazine is necessary and photocopies of the entry form are acceptable.

# JOIN THE ACTION SERVICE - AND TAKE HOSTAGES

ACE and INFOGRAMES are sending two prizewinners into the killing fields...armed with paint guns!

## THE PRIZES

The first two prizewinners will spend an action packed weekend (early in the New Year) with a member of the ACE editorial team on a private estate in war-torn Herefordshire. Why? To shoot people, that's why!

The £300-per-head weekend starts on the evening before the fighting with a sumptuous dinner. Then it's off to a hotel for a good night's kip before an early breakfast and briefing with John 'Lofty' Wiseman - one of the three ex-SAS servicemen who'll also be taking part. Uniforms will be issued before the exclusive group of twenty are split into 'Hit Squads' and airlifted, by helicopter, onto the estate. Each group is then set three tasks and by avoiding guerilla forces and a whole range of pyrotechnics - from simulated napalm bombs to thunderflashes - the group must avoid capture and complete their tasks, watched at all times by marshals.

Between 1 and 2pm everyone meets up for a full survival lunch before being shown the merits of man-traps, mines and basic survival techniques. Now fully trained, the group then gets the opportunity to put new-found skills to the test in a pitched battle amidst an enormous barrage of pyrotechnics. The objective is

simple - capture the enemy...and survive! Remember - there will be other readers and journalists from rival magazines taking part too, so ACE expects every man (or woman) to do his (or her) duty!

At the end of the battle, the war-weary troops will be taken back to the hotel by luxury coach to change and 'freshen up' before boarding the coach again and being whisked to a magnificent moated manor. A six-course banquet that includes carp, venison and grouse, all washed down with lashings of cider follows. After the meal, Lofty Wiseman debriefs the troops and show the video of the day's events - just like *Action Service*, in fact. Everyone then gets a signed copy of *The SAS Survival Handbook* before returning to the hotel for a well earned rest.

It's going to be tough out there, and only the bravest will survive so get in training now, while there's still time.

In addition to the two main prizes, 10 copies of either *Action Service* or *Hostages* are available for runners-up!

## WHAT YOU HAVE TO DO...

Just fill in the form with your age, name and address (and telephone

number for us to contact you during the day if possible). Then answer the three questions correctly before posting your entry to ACE INFOGRAMES COMPETITION, 4 QUEEN STREET, BATH, BA1 1EJ to arrive not later than 1st December. We'll pick 12 correctly-completed forms at random - the first two winners will be off to fight for the honour of ACE early next year, while ten more winners collect the game of their choice. Go for it!

## ENTRY FORM

NAME.....

ADDRESS.....

TEL NO.....

AGE.....

Tick the correct answer to each of the three questions below:

1. The SAS motto is:

- a. Never Say Never Again
- b. Who Dares Wins
- c. Geronimo!

2. The Infogrames logo is:

- a. A bat
- b. An armadillo
- c. A bullfrog

3. In *Hostages*, your aim is to

- a. Blow up a building
- b. Defuse a bomb in an Embassy
- c. Rescue some hostages



AMIGA  
£24.95

FUEL FOR ENT

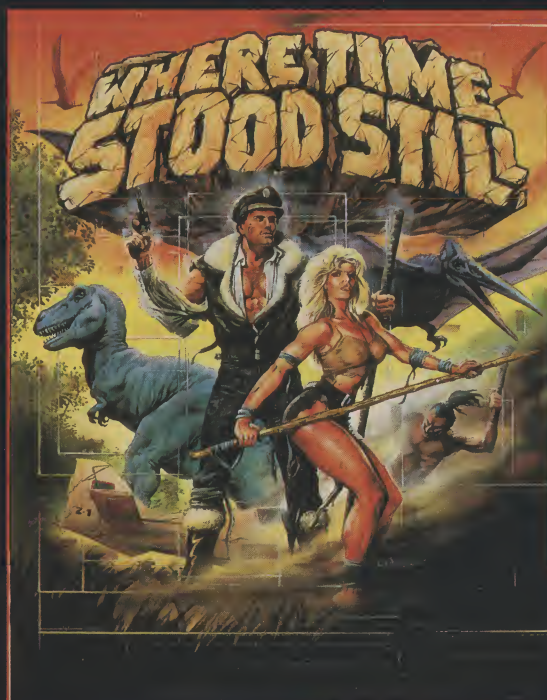


Ten Olympic events include Long Jump, Shotput, High Jump, 100m Sprint, 400m, 110m Hurdles, Discus, Pole Vault, Javelin and 1500m. You will need all your skills to build on what you hope was, an impressive work-out, and, as is necessary for all top flight athletes, your judgement to select the most effective equipment for each event is now vital – a decision which can win or lose you a place on the podium. This isn't just another sports simulation, this is a Daley Thompson 'event' where all his talent and humour burst through to make a thrilling and entertaining game play for all the family. Go for the Olympic Challenge!



FROM

ocean



Your plane has ditched on a mountainous plateau somewhere in deepest Tibet. You and your companions are alive. A large shape moves toward you, you rub your eyes in disbelief; a Dinosaur! – where are you ... and when? Stunning, monochromatic 3D graphics and 4 way scrolling, give that '50's cinema mood as you learn not only to survive, but also that your companions are not all they first seemed!

© 1988 Ocean Software

FROM

ocean



From the SNK stable the coin-op smash is now for your home micro. This multi-level, vertically scrolling arcade thriller throws you deep into the jungle and ruined cities of a nation held in the grip of a cruel oppressor. Freedom is your aim ... Guerrilla War is the means!

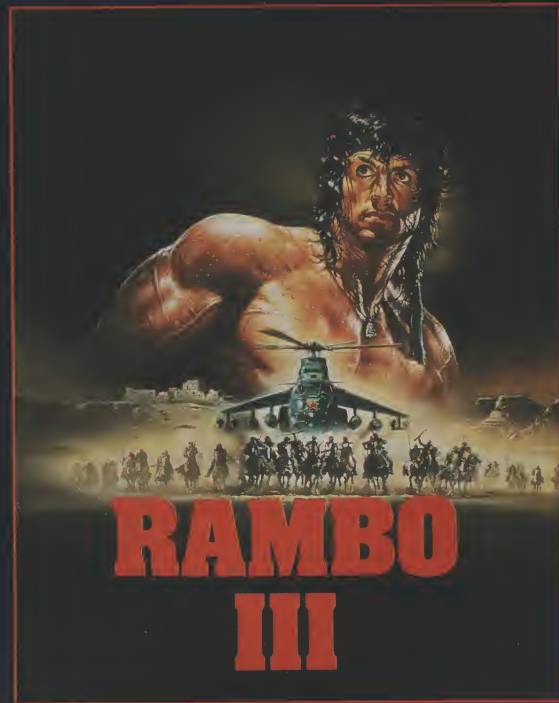
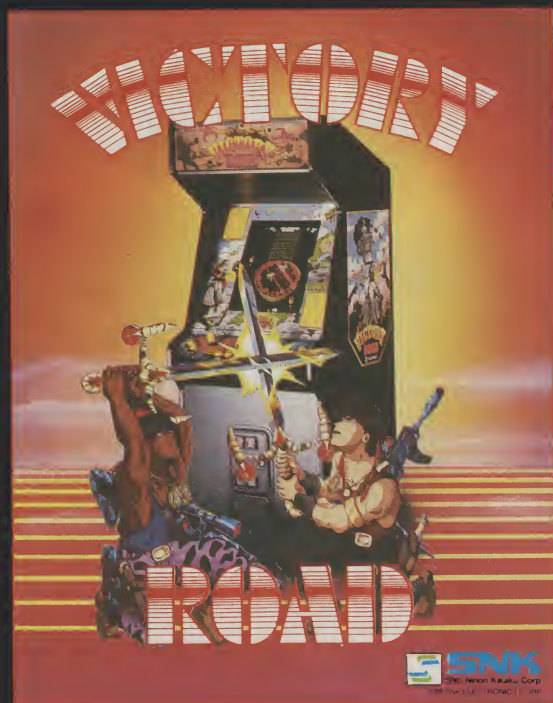
16 BIT STATE





ATARI  
ST  
£19.95

# ENTERTAINMENT



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War is



Fight on guerrillas!  
Attack the fortress!

This is where the fun really begins. You will meet vampires, two and three headed monsters – the head will fly at you on its own, just when you think you are gaining the upper hand. Trapdoors and elevators transport you – sometimes to your surprise – inside ancient buildings and under lakes and oceans. Build up the firepower necessary to fight off your aggressors. Action and excitement all the way with this macabre and unusual game; which has that elusive extra something to keep you coming back for more.

© 1985 SNK ELECTRONICS CORP.



He's back and this time he's taking no prisoners. Colonel Trautman has been captured by the Russians in Afghanistan and there is only one person capable of freeing him. Negotiate the minefields, explore the Russian camp, lay boobytraps, avoid detection, free the Colonel and then ... move on to the explosive climax!

**RAMBO IS BACK!**

Rambo III T.M. & © 1988 CARLOCO PICTURES INC. All Rights Reserved.



FROM  
**ocean**

# OF THE ART



COMING SOON

# SPEEDBALL



ATARI ST - £24.99. AMIGA - £24.99  
PC AND COMPATIBLES - £29.99

**SPEEDBALL - TOTAL ACTION,  
TOTAL AGGRESSION - THE  
ULTIMATE SPORT FROM THE  
BITMAP BROTHERS.**

**"SPEEDBALL IS FAST, FURIOUS  
AND GRAPHICALLY VERY  
STYLISH." COMPUTER GAMESWEEK 94%**

**image**  
works



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Headway House, 66-73, Shoe Lane, London, EC4P 4AB. Tel: 01-377 4645 Fax: 01-583 3494 Telex: 265451 MONREF G



## THE DECODER PROGRAM

This short program listing will DECODE the 4-letter codes printed below next to the prizes. It turns each code into a five-digit number such as the one printed on your ACE card. All you have to do is type-in the program using the instructions for your computer printed below.

Then RUN the program. It will ask you to input each of the prize codes in turn and will then reveal on screen the winning numbers. If your number comes up, YOU CAN IMMEDIATELY CLAIM YOUR PRIZE!

If you are unable to get the program to work, a list of the winning numbers, correctly decoded, may be obtained by sending a stamped addressed envelope to:

ACE November winners list, 4 Queen Street, Bath BA1 1EJ

### C64, CPC, ST, AMIGA version

```
10 FOR A=1 TO 28:INPUT "Code";B$
20 B=0:FOR C=1 TO 4:B=B*26
30 D=ASC(MID$(B$,C,1))
40 IF D>90 THEN D=D-32
50 B=B+90-D:NEXT C:PRINT "Winning
Number is";B:NEXT A
```

### SPECTRUM version

```
10 FOR A=1 TO 28:INPUT "Code";B$
20 LET B=0:FOR C=1 TO 4:LET B=B*26
30 LET D=CODE B$(C TO)
40 IF D>90 THEN LET D=D-32
50 LET B=B+90-D:NEXT C:PRINT "Winning Num-
ber is";B:NEXT A
```

## TYPING IN THE PROGRAM

### SPECTRUM

48K: Power on, and type the Spectrum listing in as shown, pressing ENTER at the end of each line. To get the word CODE in line 30, hold down caps shift and symbol shift keys together and press the letter I key. When you've typed all five lines in correctly, press R (for RUN) followed by ENTER. Now type in the codes one at a time, pressing ENTER after each one: the program will stop after you've typed in all 25 codes.

128K: Select 128K BASIC mode from the start-up menu and type in the Spectrum listing as shown, hitting ENTER at the end of each line. Type RUN, hit the ENTER key again and type the codes in as for the 48K Spectrum above.

### C64/128

Type the listing in as shown, hitting the RETURN key at the end of each line. Type RUN (Don't use the RUN/STOP key), hit RETURN and then type the codes in one after the other.

### AMSTRAD CPC

Type the listing in as shown, hitting the RETURN key (6128) or the larger of the two ENTER keys (464 or 664) at the end of each line. Type RUN and hit RETURN or the large ENTER key again - don't use CONTROL and the small ENTER key here - and type the codes in one after the other.

### ATARI ST

Put the LANGUAGE disk in the drive and switch the ST on. Double-click first on the drive A icon and then on the BASIC.PRG icon to boot Basic. Type EDIT and press the RETURN key. Now type the listing in, hitting RETURN after each line, and press the F10 key when you've typed all five lines in. Now type RUN, press RETURN again, and type the codes in one at a time.

### AMIGA

Switch on, put your 'Workbench' disk into the drive and wait for the desktop to appear. Now put your 'Amiga Extras' disk in the drive, double-click on the EXTRAS icon and then double-click on the AMIGA BASIC icon. Type the listing in as shown, hitting RETURN after each line, and then click on the BASIC (rather than the LISTING) window. Type RUN, hit RETURN and then type the codes in one at a time.

### OTHER MACHINES

The 'C64, CPC etc' listing is standard MicroSoft Basic, so it ought to work on most micros. If you can't get it to work on yours, write to us for a list of winners - details of this are printed above.

## RULES

1. This promotion is open to everyone with the exception of employees of Future Publishing Ltd and anyone involved in the distribution or retailing of Advanced Computer Entertainment magazine.
2. Ownership of the ACE card is limited to one per household.
3. Each four-letter code printed in the magazine corresponds to a winning 5-digit number on one of the ACE cards.
4. The codes must be correctly decoded using the program printed each month in this magazine.
5. Claims for prizes must be received by first post on the closing date at the latest. The value of any unclaimed prizes will be carried forward to future issues.
6. If, due to a production error, more than one person claims a single prize, the publishers reserve the right to divide the prize between the claimants.
7. In the event of any dispute, the decision of the publishers is final.

# WIN AN AMIGA!

Has your ACE card come up trumps this month? There are 25 great prizes.



For everyone who's received a free ACE card (if not, see below on how to get one), here's another great opportunity to win prizes.

Using the program listed on the right, just type in the 28 new 4-letter codes printed on this page. If the program converts one of them into your personal number, you're a winner!!

## WE WANT A WINNER!

Note that we are now printing FOUR winning codes for the ACE card. If the owner of the 1ST CLAIM code hasn't claimed his prize by the closing date it goes to the owner of the 2ND CLAIM code. If he hasn't claimed his prize by then it goes to the owner of the 3RD CLAIM code...and so on. Should the 1st Claim owner claim his prize, the owners of the 2nd, 3rd and 4th claim codes automatically qualify for one of our SECOND PRIZES.

## NEW PROGRAM!

If you're a long-standing ACE card-holder, you should make sure you use the listing entered in this magazine and not one you may previously have SAVED. This is because we have to make changes to the program on a regular basis to accommodate the large numbers of people entering the ACE Card scheme each month.

## LOOK AT THESE PRIZES!

### ONE 1st PRIZE: AMIGA + COLOUR MONITOR

1st claim **WMFD** 2nd claim **WAXD** 3rd claim **ZTTZ** 4th claim **XIHV**

### FOUR 2nd PRIZES: £50 of software - chosen from the ACE

Special Offer pages

The winning codes: **YSEJ** • **XCPV** • **UQLP** • **UIBX**

### TEN 3rd PRIZES: £25 of software - chosen from the ACE Special Offer

pages

The winning codes: **YXHH** • **YVIO** • **YEXP** • **VXIQ** • **VUCF** • **WEGZ** • **VHQM** • **VYBF** • **XMOS** • **VPVJ**

### TEN 4th PRIZES: A year's free subscription to ACE magazine

The winning codes: **YMUE** • **VCAH** • **XJDV** • **WXTB** • **WNAP** • **WEJE** • **ZKBG** • **WFZT** • **XYES** • **YAAZ**

## HOW TO CLAIM A PRIZE

If you are one of the winners, you may claim your prize simply by posting us your ACE card together with a note saying which prize you are claiming (and from which issue of ACE).

If your prize is for software, list carefully the software you would like from the selection printed in the ACE Reader Offer pages (115-118).

Assuming your claim is valid, we will forward your prize and return your card within 28 days (probably much sooner).

Post to: ACE CARD PRIZE CLAIM, 4 Queen Street, Bath BA1 1EJ Closing date for claims December 3rd 1988

## HOW TO OBTAIN AN ACE CARD

If you missed the April issue of ACE, you may obtain an ACE card free of charge by sending us a stamped self-addressed envelope together with a signed statement saying that neither you nor anyone else in your household already owns an ACE card. Apply to: ACE CARD REQUEST, 4 Queen St, Bath BA1 1EJ (This offer valid while stocks last).



# FIVE FIST-FULLS OF S

## ROY OF THE ROVERS

**NEWSFLASH!** Four of the Melchester Rovers five-a-side football team have been kidnapped... hours before a crucial fund-raising game to save their ground from grasping property developers. Time is running out and player-manager Roy Race MUST rescue his team-mates, dodging danger, escaping ambushes and boobytraps in order to play the most important game of his career!

CBM 64/128 £9.99 cassette £14.99 disk  
AMSTRAD £9.99 cassette £14.99 disk  
SPECTRUM £7.99 cassette £12.99 disk

## GARY LINEKER'S HOT SHOT

The most realistic football game ever produced for your computer. Play in a full-scale eleven-a-side football game complete with sliding tackles, throw ins, corners, goal kicks, fouls and even the dreaded referee with his red card. With all these features to watch out for will you have what it takes to match the shooting skills of England's top striker in Gary Lineker's Hot Shot.

CBM 64/128 £9.99 cassette £14.99 disk  
AMSTRAD £9.99 cassette £14.99 disk  
SPECTRUM £7.99 cassette £12.99 disk  
ATARI ST £19.99 disk  
AMIGA £19.99 disk IBM PC £19.99 disk

## SUPERSPORTS

As varied and as bizarre a collection of unique sporting events as you are ever likely to find. Have you got a good enough eye to be a 'crack shot'; the nerve to attempt the 'devil dive'; the strength to 'smash slates'; the accuracy to shoot the 'cross bow'; and finally (and unbelievably!) triumph over an 'underwater assault course'. Up to four players can compete in the outrageous challenge!

©FLEETWAY PUBLICATIONS

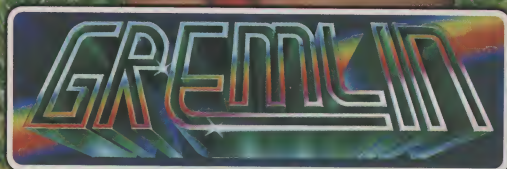
# Roy of the Rovers



# Gary Lineker's Hot-Shot!



# SUPERSPORTS



Screen shots from various formats.



# OF SPORTING POWER

## GARY LINEKER'S SUPERSKILLS

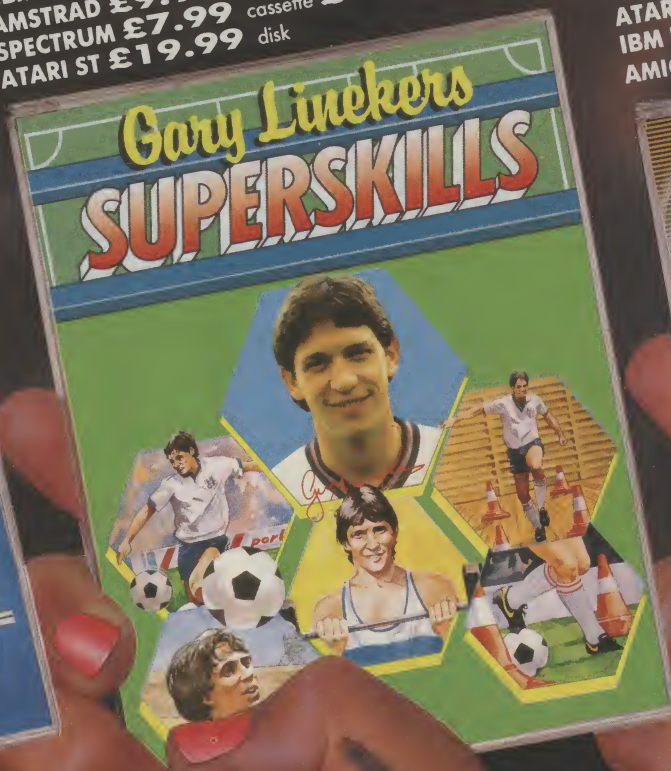
Hot on the heels of the hugely successful Superstar Soccer comes Superskills, again endorsed by England's star striker. To command a permanent place in the national team means dedication - dedication towards hard work and training. The national coach has designed an extensive training programme which will improve your fitness, ball control, sharpness and accuracy. Can you prove yourself to be both physically and mentally agile and alert?

CBM 64/128 £9.99 cassette £14.99 disk  
 AMSTRAD £9.99 cassette £14.99 disk  
 SPECTRUM £7.99 cassette £12.99 disk  
 ATARI ST £19.99 disk

## ULTIMATE GOLF

The ultimate golf simulation for your computer. See how different shots affect the way the ball is hit. Let the computer determine your skill level. Perfect your technique by following the example of the computer golf player. A must for all enthusiasts who've tried their hand at computer golf but never met a challenge as testing and enthralling as Ultimate Golf.

CBM 64/128 £9.99 cassette £14.99 disk  
 ATARI ST £19.99 disk  
 IBM PC £19.99 disk  
 AMIGA £19.99 disk



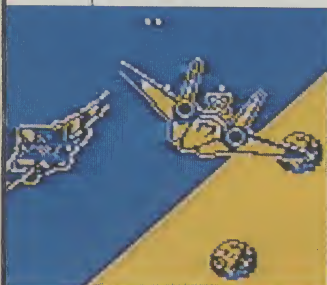
**GRENNIN**





## AFTERBURNER ● Activision

Take to the skies in your F-14 Tomcat and dog-fight your way through stage after stage of enemy territory. Rip into the enemy fighters with your Vulcan Gun or lock on to them and loose off a missile. You'll hardly have time to think as you bank and dive your way through danger – it's action all the way here folks!



(Right) C64 – Bingo! that's one down, several thousand more to go!

(Left) Spectrum – Banking to avoid the enemy who come at you from in front and behind.



The games are getting hot. ACE takes its monthly look at the products that software houses will be tempting us with in the near future. Let's hope they turn out to be crackers and not turkeys...

# CHRISTMAS IS COMING!



## 944 TURBO CUP ● Loriciels

As Loriciels have recently started sponsoring the Porsche 944 Turbo driven by top French racing driver Rene Metge, they've got together with the great man himself and are currently developing a racing game based on the great French racing event. Turbo Cup features several circuits which, Loriciels claim, are as authentic as possible. As all the cars are the same in the real race, it's driving skill that makes a winner, and the same is going to be true in the game.

## TOTAL ECLIPSE

● Incentive

The year is 1930, the setting is Egypt and your mission is to stop the curse of the sun god Ra being triggered by the moon that is due to pass between the Sun and Earth. You have two hours to crack the problem. Armed with just a revolver, you'll need quick reactions, cunning and a full water bottle to avoid the curse being activated. This is the third Incentive release to feature the Freescape system and if the other Freescape game, Driller and Dark Side, are anything to go by, this one is going to be a hot contender.

**Spectrum – that's your bi-plane parked outside the pyramid at the start of the game.**



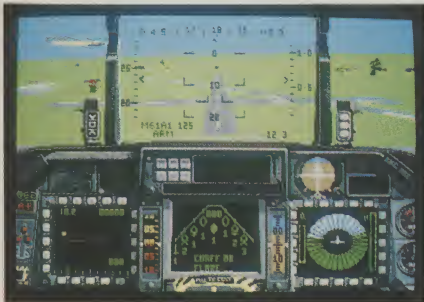


**F-16 COMBAT PILOT**

● Digital Integration

Going head-to-head with Falcon this winter will be DI's combat/flight sim based on the American F-16 fighter. Although the game will have a quick-start option, serious pilots will be assigned to the Tactical Fighter Training Squadron where they'll be assessed in five main operations areas. Graduate, and you are assigned one of eight squadrons and each squadron is responsible for sorties within their operations area. The game is due for release on the ST and PC.

**Looking forwards on the ST as you come into land.**



**Looking over your right shoulder as you bank to fly over the airfield.**



**Spectrum - viewing the action from behind as you weave between tower blocks - not dodging the flak this time!**

**THUNDERBLADE**

● U.S. Gold

Following their success with Out Run last Christmas, U.S. Gold are hoping to do the same again this year with home micro versions of the smash Sega coin-op Thunderblade. You're piloting an attack helicopter through several stages of hostile territory, with the view of the action changing with the stage. Sometimes your view is from directly above, sometimes it's from behind. Get your joystick arm and trigger finger in shape now, because this one promises to test even the toughest!

**ST - viewing the action from above as you dodge the flak and inflict the damage.**

**WEIRD DREAMS** ● Rainbird

Lying comatose in a hospital bed, you drift helplessly into the strange world of your subconscious. In the Dali-esque landscape, everyday objects become distorted and nightmares come to life. Weird is an accurate description of the environment in the game, so the sooner you can solve the intricate and imaginative puzzles and return to the real world, the better.

**Andy Wilton on a good day perhaps?**

**FALCON** ● Mirrorsoft

One of the best ever PC and Mac combat/flight sims is being converted to ST and Amiga. Added features include improved ground scenery and moving ground targets. The game contains some 12 missions and even gives the player the chance to dogfight with up to three MiGs. Remember, Falcon's the game adopted by the Pentagon to train pilots in 'situational awareness and BVR combat, so it has got to be good...

**ST - looking over your left shoulder as you taxi onto the runway.**





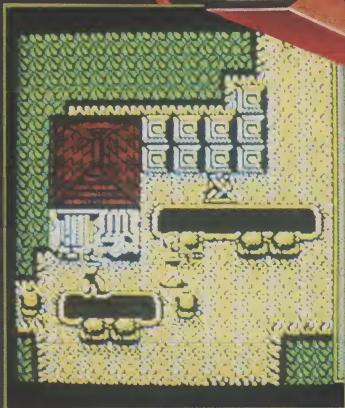
# ARCADE ACTION

From the SNK stable, the coin-op smash hit now for your home micro. This multi-level, vertically scrolling arcade thriller throws you deep

into the jungles and ruined cities of a nation held in the grip of a cruel oppressor. Freedom is your aim... Guerrilla War is the means!



# GUERRILLA



AMSTRAD  
£ 9.95  
COMMODORE

**SNK**  
Shin Nihon Kikaku Corp.  
1985 SNK ELECTRONICS CORP.

SPECTRUM  
£ 8.95  
SPECTRUM

IMAGINE SOFTWARE · 6 CENTRAL STREET · MANCHESTER M2 5NS

*The name  
of the game*

TEL: 061-832 6633 · TELEX: 667799 OCEANS G



# GRAPHICS GALORE



● This month, some of the secrets behind the TV programme *Nightmare* are revealed, as we interview The Travelling Matte Company, the people who bring creatures like Eric to life. No, not an ACE staff writer, merely a model that is animated and superimposed on live action by a Supernova computer. Turn the page for more details...

Despite a lead of several years in the Desktop Presentation field with the Amiga, Commodore seem to be cutting things a bit fine as now ever Amstrad, together with the other 'A' level companies, Apple, Atari, and Acorn, develop and promote their latest contenders in the graphics arena. With the new challenge of VGA MS-DOS machines from Amstrad, which machine should the graphics fanatic go for?

# GRAPHICS WORKSTATIONS

## ■ CHEAP 'N' QUICK 'N' EASY

A budget graphics workstation has got to be cheap and it's got to get good graphics up on that screen quick and easy. To qualify as budget, it seems reasonable to set a cost limit of about £1000. Most people would think that bit high, but compared to commercial workstations, most of which start at 5 figure sums, £1000 is very cheap. With that limitation it is only the new Amstrad 8086 model that bears comparison - the 8286 and 8386 are too expensive for the average home user.

Although it is much cheaper than dedicated 'professional' systems Apple's MacII also falls at this point. The Mac may be a common 'home micro' in the States but here it's just a fantasy. Similarly, Atari's new

Transputer Workstation ATW (formerly ABAQ) at about £5000 fails the price test. They are also both rather short of software at present, though limited compatibility with earlier machines - the ST and b&w Mac - confuse the issue slightly.

So the only machines able to compare with the new Amstrad on the basis of cheap graphics are the Atari ST, the Amiga 500, and the Acorn Archimedes 300 series. Let's start by examining what the Amstrad has got to offer.

### A MESS DOS?

The most exciting development on the Amstrad 2086 is the VGA display. As you will see elsewhere in this month's issue, you can choose 256 colours from a 260,000

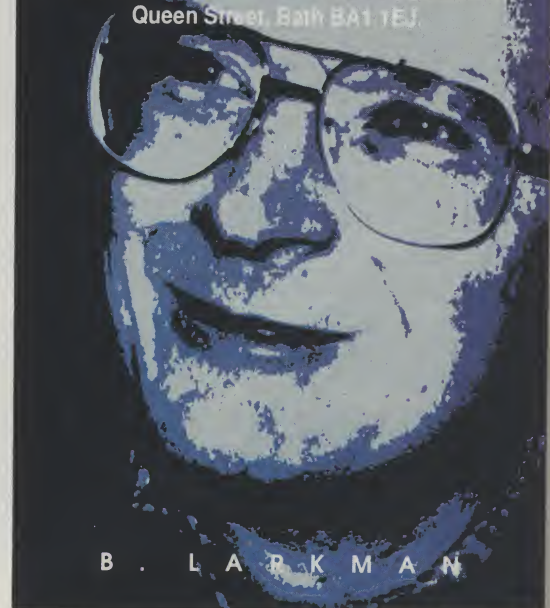
shades and display them simultaneously at a maximum resolution of 640x400, apparently beating both the Amiga and the Archimedes static capabilities. In most other respects, however, the 8086 is a fairly ordinary PC clone.

That's the core of the problem. Although at first sight such an impressive display specification should make the Amstrad an excellent graphics workstation, there is more to good graphics than loads of colour. It is also important to quickly and easily transform the screen with a wide range of techniques; the Amiga and Archimedes, and to a lesser extent the ST, can all support painting, 3D modelling, ray-tracing, image processing, and animation. All these require large amounts of computation. As

ACE resident pixel professor, Brian Larkman, tries to tell the future this month by looking at Amstrad's new VGA machines from the artists point of view. The man himself is in doubt as to what HE'D go for.

Brian's also co-opted the help of John Downie in the form of a short piece about the Travelling Matte company, who produce computer-generated images for TV (including *Hitchhickers* and *Nightmare*). They probably won't be using the new Amstrads - they go for things in the £200,000 price bracket.

There's even room for a couple of reader's letters, this time about scanners and becoming a computer graphics artist. Don't forget - if you've got a pictorial problem, drop Brian a line c/o Pixel Post, ACE Magazine, 4 Queen Street, Bath BA1 1EJ.



B . L A R K M A N



# RISC OBLITERATION?

Computer graphics places the heaviest burden on the computing power of any processor. To get round this computation problem the Amiga and the Archimedes use diametrically opposed solutions – hardware and software oriented respectively.

The Amiga is still the only common home computer to use a BLITter (BLock Image Transfer) chip. This provides a system of optimised instructions that allow large areas of screen memory to be manipulated quickly by a separate chip, ensuring that colour and movement calculations take place independently of the central processor. The Amiga also has several other dedicated chips specifically designed for particular tasks allowing the main processor to operate unimpeded for much of the time. Although this method works well for specific tasks like screen and sound computations, it is of limited use

for many other applications, especially those unforeseen in the design stage. Nevertheless for graphics applications the Amiga is still supreme in this price range. The new Amstrads also have some 'custom' chips but it is unlikely that these will shoulder enough of the computing load to make more than a marginal difference to the 8086's graphics power.

An alternative way to cope with a heavy computational load is to strip the main processor down to its minimum number of essential instructions so that it can operate at very much faster speeds. When a specific task needs to be undertaken, the required 'optimum' instructions are provided in the software so that the computer works most efficiently on any specific job. This sort of reduced instruction set (RISC) chip is one of the current flavours of the month. At present,

the Archimedes range offers the only one available at anything like a budget price. The result of this software oriented strategy is, at least in the case of the Archimedes, an amazingly fast computer than can undertake graphics operations so quickly that its normal operations are hardly impaired.

With software like Clares' Pro Artisan, AMS's Flair, and ACE Software's Euclid all providing superb facilities using the RISC architecture, it is a great pity that the Archimedes is unlikely to make much of an impact outside education and science – and perhaps broadcasting – within the UK. Where Acorn may be able to have more success is with ARC based add-on boards for the PC market. Several of these are already on the market, any of which could provide almost Archimedes power for the Amstrads – at a price.

several of the more advanced graphics oriented packages on the standard Atari ST have shown, working with numerous colours over a large area can tie up the main processor and effectively lock the machine for minutes at a time.

This results in excessive tea drinking, frequent visits to the fridge for fattening munchies, and much boredom and frustration. The Amstrad 8086 chip is considerably slower than the Atari 68000 and it is unlikely that much advanced graphics software will be able to operate effectively on the cheapest Amstrad. The faster 8286 and 8386 should partially overcome this difficulty, but they are much more expensive and still just barely as effective as the basic Amiga 500 with its blitter or the RISC-based Archimedes 310 for graphics applications (see box – BLIT or RISC).

In terms of a budget graphics workstation therefore the new Amstrad 8086 has a fine display but probably not enough power to do much with it. Time will tell how limited a graphics engine it really is, that said, there is still a whole lot of graphics software available for it, is there not? Well, yes and no...

## SOFT SELL

When it comes to painting, there is only a small choice of software available at reasonable prices for MSDOS machines – and even that is aimed at standard VGA dis-

# FANTASY FACTOR

Robert Harris, the techno-brain behind ITV's award-winning Nightmare program, is chief of the Travelling Matte Company and also responsible for, among other things, the computer graphics on the BBC's Hitchhikers Guide to the Galaxy. When we met him on a promenade in Brighton, he was sitting at a graphics terminal displaying a live image of the pier, apparently subjected to electrifying bolts of lightning and clutching a chipped enamel mug topped up with champagne. 'We are committed,' he announced chirpily, 'to dabbling with reality.'

You may already have seen Nightmare, in which real people do physical and intellectual battle with a mix of reality and electronic fantasy in a world peopled with computer animated monsters like Eric. Four skeleton legs surmounted by a skull go to form him, and he exists as 16 video frames which can be subtly animated so that Eric appears to watch the adventurer enter his lair.

This requires some deft work by the animator, for Nightmare is recorded 'live' and is shot on a single occasion to maintain the adventuring team's belief in the fantasy. Only then, says program creator Tim Childs, can the audience feel part of the adventure too.

The Mercedes van, which is Travelling Matte's mobile studio, is a little like the Tardis. The day we visited, during the International

The Travelling Matte Company specialise in passing off fantasy as reality. ACE went to find out more...



Eric, superimposed on a painted background. (Inset) Robert Harris, the man at the controls of the Spaceward Supernova that makes Nightmare possible, eyes up the model of Eric.



plays at best - 256 colours at 320x200 lines. The Atari and the Amiga can both display approximately 4,000 colours at this resolution as a result of some fairly devious programming tricks. Similar methods might make 260,000 shade displays available on the Amstrad but it requires the will of some enthusiast to do it. The best we can hope for is a 256 colour, 640x400 version of *Deluxe Paint PC* - and even this will be painfully slow and greedy for disk space on an 8086.

As for other requirements - 3D modelling, ray-tracing, animation, and image processing, all these ARE available to run on MSDOS machines - at a price. But in most cases they can only function if hard disks and co-processors are fitted adding further to the cost. In time, just the presence of a vast number of cheap Amstrad MSDOS VGA machines on the market will result in some of this software coming down in price or cut-down versions being released. This has certainly happened with commercial and office packages. MSDOS machines may even end up selling a greater volume of home-oriented graphics software just because of their predictable profusion. Nevertheless, in graphics terms it's the software that counts, so the Amstrad is really only competition for the Atari ST. If you want an effective and versatile graphics workstation for under £1000, an Amiga 500 is still the Pixel Professor's choice! ●

# PIXEL POST

This month the Pixel Professor has just enough space to check out scanners and hear how difficult it is to become a computer graphic artist...

Dear Brian,

Do you know of any good but cheap scanners available for the Amiga 500? If so, what equipment would I need and how much would it cost? I've tried looking in the classified ads but there don't seem to be any scanners advertised.

Miss B. Scott, Meols, Wirral

As always, cheap is a very relative term. There are three scanners that I know of for the Amiga at present but none of them is particularly cheap.

Scanners are devices that allow flat artwork, photos, text (or sometimes even 3D objects) to be easily digitised for use in graphics and DTP applications. Two types are currently available: a flatbed scanner and a hand-held 'mouse' scanner. Flatbed scanners are similar to photocopiers in operation, flat artwork being placed face down on the top surface and scanned from below. Mouse scanners are very much like large versions of the normal computer mouse. In operation the artwork is placed face up on a desktop and the scanner is slid slowly over the required area.

Both types are capable of scanning in black and white or a number of grey scales, though the second option usually costs more. In any case, flatbed scanners are more expensive because they usually scan a larger area and often produce higher resolutions. Mouse scanners only 'grab' a strip about 3 or 4-inches wide. Typically the flatbed types cost £800 to £3000 and the mouse type £150 to £600.

For the Amiga, Burocare (01-907 3636) have AMISCAN, a flatbed scanner that doubles as a thermal printer and photocopier costing £800, which is therefore relatively cheap but probably outside your budget. Closer to a realistic price is the Handy Scanner from Cameron UK (01 499 9192) but costing around £360 it is still almost as expensive as the Amiga itself. Even cheaper is the hand scanner (£300) available from the Amiga Centre, Scotland (031 557 4242). All three of these scanners 'grab' at approximately 200 dots per inch.

Dear Brian,

Just a quick letter on the Graphics Front aimed at anyone who is keen on starting a career as a Computer Graphic Artist. Many people think that getting an artist position within a software house is MEGA TOUGH. In most cases this is true, mostly due to the large amount of artists that are about. I started out on an Amstrad 464 and tried to get a GAC game published, but to no avail. After this first attempt I was a bit GLUM but stuck at it.

**Rule 1. Keep On Trying.** You may lose sleep and time, postage money, cassettes/disks, but in the end your efforts will pay dividends. Of course there is no substitute for a good portfolio. Think of it like a hobby and enjoy it, sooner or later you will develop a style of your own and then this will get recognised.

**Rule 2. Make your first portfolio your absolute best.** It may have taken you 2 weeks or 2 years (usually the latter), but at least you will know that it is your best effort.

**Rule 3. Protect yourself.** It is very difficult for a starter to save up loads of dosh for legal advice over breach of copyright. Get yourself a registered envelope and address it to yourself. Then have a word with your (or 'a') bank manager and pop in the disks/cassettes, which will be put in the bank's vault. Any dubious activities with your work, if not returned, can then be proved to belong to you as it is dated and held safe.

My first work was for Exocet Software who received the control panels and title screen for *Phantasm*. Now I have started work for Ocean Software in-house. This job took me five years to land - so as you can see, it can take ages. There are a hell of a lot of AMAZING artists, 8 and 16 bit out there, why aren't they being snapped up?

Roy Lewis, Warton, Lancs.

## CRY

Broadcasting Convention, a gale was polishing a very clear blue Brighton sky, turning the world into a sort of chroma-key fantasy whilst inside the van a beautifully detailed video world was being developed, albeit one which is divided into rooms with exits to North, South, East and West.

The Nightmare program uses electronic scenery generated by a Spaceward Matisse System on Supernova hardware (12 Mbyte RAM, 380 Mbyte hard disk). The images are accurately keyed or 'matted' to live shots of a chroma-key studio in which the adventurer pursues his quest directed by his team. The viewers and the team see the scenery superimposed and by techniques of lighting control and subtle matting, creating an effective illu-

sion in which even translucent objects can be electronically introduced.

Harris claims that the technology to create this fantasy world has only been available for the last two years. His training and experience with theatrical set design has, however, been built up over many more years and his artistic flair provides the touch of class which makes the programme work.

The format is being sold to the USA and I'm sure that over the next few years the freedom generated by electronic scenery will blossom into many more TV programs of increasing complexity. The superimposition of a 2D image on a 3D set means that only one fixed camera position is possible but, as software develops, camera movements will be linked to complete 3D generated images allowing much more dynamic action than is currently feasible. Harris says that they would like to store scenes on a laser disk, though this is not currently possible.

The idea of a mobile graphics studio is a clever one. Next time you're having trouble with your favourite 'paint' program, your artistic efforts are leaden, and your animations are truly awful, just pop out into the garage, slip into your Mercedes van, and boot up a few hundred thousand pounds worth of hardware, not to mention the team of professionals ready at your command. Their rates are really very reasonable...



Travelling Matte's mobile studio - you'd never believe so much techno-gadgetry could be crammed in such a small space.



# GRAPHIC ACCOUNTS



Shades of glory from Electric Image. Will they ever make a James Bond movie this way?

Other than the new Amstrads (see elsewhere in this month's issue), the most interesting graphic software at the recent PC(w) Show was the now expanding range for the Acorn Archimedes. Come on a quick trip round the latest developments on the software front...

## PRO ARTISAN

The most versatile drawing package so far is the 'professional' version of Clares' *Artisan, Pro Artisan*. Every facility imaginable including Bezier curves, a wide range of fill options, irregular cut and paste, extensive colour manipulations, and image processing, has been included.

Using 256 colours on-screen selected from 4096 at a resolution of 640x256, *Pro Artisan* compares well with Amiga packages like *Photon Paint* and *Deluxe PhotoLab*. 26 high-quality fonts and a wide range of printer dumps are also included in this comprehensive package.

Advanced Memory Systems of AMX Mouse and *Finesse* fame are about to release both the ST and Archimedes versions of *Flair Paint* (originally called *Finesse Paint* before Logitech took over). Archie's *Flair Paint* operates in the 16 colour 640x256 resolution to allow faster operation and smaller files. Both versions are specifically designed to optimise printed output with a large page area as well as all the usual drawing tools thoughtfully implemented. For example, variable rotate operates with the cut section visible at all times. At this budget price, *Flair Paint* seems very good value. To be sure, watch this space for a full review. Contact AMS on 0925 413501 for more details.

## IT'S ALL GREEK

Continuing the Greek theme *Euclid* (£45.00 from ACE Computing on 0223 322559) is a 3D modelling and animation system. It is fast, versatile, and relatively easy to use, though without *Sculpt 3D*'s user friendliness. It includes orthogonal or perspective projections, line or surface drawing, full hidden line and surface removal,

and instant scene and object transformations. It is even fast enough for some degree of real-time animation of solid 3D objects, something no package on the Amiga can achieve. Ray tracing modules are in preparation. John Downie is getting to grips with *Euclid* at the moment and his report will be on these pages very soon.

## NOT SO TAXING

The name *Forms in Flight* always makes me think of my tax returns winging their way to the tax-man. *Forms in Flight 2* (Amiga + 1 Mbyte, available from the Amiga Centre, Scotland on 031 557 4242) is a vastly improved version of the 3D graphics and animation system from Micro Magic. With surface patches, texture mapping, phong shading, and path extrusions *Forms in Flight 2* seems to hold the crown as the most advanced graphics package for a home computer. However, with *Sculpt 4D* well on the way it may be unthroned soon.

## MORE PAINT HYPE

Not seen at the PC Show was the promised Atari ST paint system *Hyperpaint* (Atari £24.99) which claims to 'herald the next generation of graphics packages'. After a week of intensive use it became apparent that Atari have used more hype than paint, for *Hyperpaint* is really just an average paint program - better than *Neochrome* for sure, but no competition for *Degas Elite* or *Art Director*. This conclusion is borne out by the suggestion that *Hyperpaint 2* is already under discussion.

The only unique feature of *Hyperpaint* is its ability to work on really large scanned images. Only on 1 Mbyte machines or larger, though. To

compete, *Hyperpaint 2* must provide a very wide range of colour facilities or concentrate on doing one job really well. Perhaps a cut-down version of *Adobe Illustrator* would be a better role-model for a machine that is being promoted as a cheap Macintosh. *Illustrator* is an object-oriented drawing system somewhere between CAD and 'painting' designed to produce illustrations for DTP applications. Look out for this sort of package soon on the ST and Amiga.

## QUANTUM STUMBLE

Another disappointment is the latest version of *Quantum Paint* v1.05c for the ST. After months of waiting with bated breath because of various delays including the postal strike, it is still far from perfect. Bugs haunt the screen including a 'ghost' of the control panel carried over occasionally to the drawing area. Worse there are still no functions that actually 'use' the 512 or 4096 shade 'wide-band colour' mode - i.e. smear and colourising (see *Quantum Paint*, ACE Issue 6). Again, despite its omni-colour modes, *Quantum Paint* is still not as useful as *Degas Elite*.

## ...TO THE SUBLIME

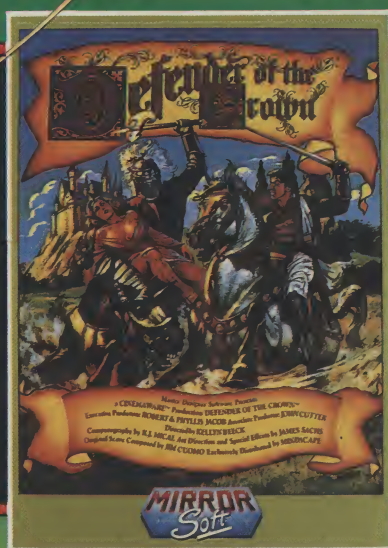
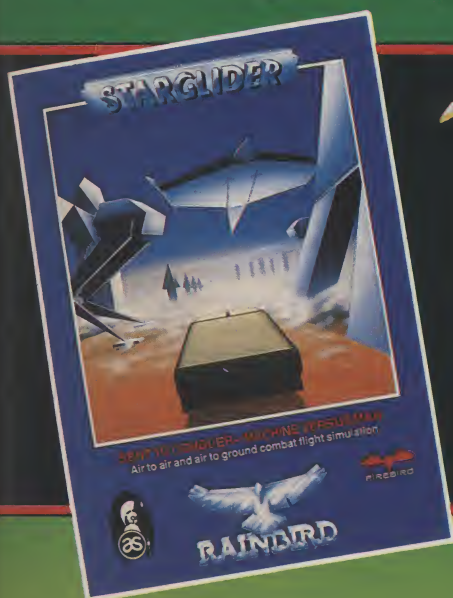
Electric Image, arguably the most innovative producers of broadcast-quality computer graphics in Britain have now acquired the first stage of their new hardware system. Based around an AT&T Pixel Machines parallel processing render machine, they are now able to produce photo-realistic ray-trace type animated graphics in real-time. The potential of this machine is such that we might soon be seeing a full-length animated film with the visual complexity of the Access 'Duck Pond' advertisement. ●



# T'R I A 'D



## V O L U M E . 1



A COMPILATION OF THE THREE CLASSIC  
16 BIT HITS FOR THE ATARI ST & AMIGA

£29.99



# THE PC ALTERNATIVE

You've been saving all your pennies up so that you can replace your 8-bit machine with an ST, Amiga or Archie. But wait a minute - could you be missing something? Mightn't that hole in your lifestyle be PC-shaped?

**H**ow's this for an idea: the world's leading computer companies all build 16-bit micros to a common design so that the same software runs on each of them. Thousands of other manufacturers working to the same design turn it into the number one micro standard, and vast numbers of programmers write software for it. Amstrad, Atari and Commodore all get on the bandwagon, prices plummet and soon everyone can afford one of these universal machines.

Sounds exciting? Well, it isn't: in fact it's very, very boring. It's already happened you see, and the machine everyone settled on was the IBM Personal Computer. Now of course, we all know the PC and its many, many clones are the dullest things going. I

mean, you might as well go and buy a Z88 if you want entertainment - mightn't you?

## BORING

In the UK, PCs have traditionally been expensive machines. A £1,000+ machine is pigeon-holed in the business sector almost automatically, and even Amstrad's price-busting antics over the last year have done little to change that view of them. It's a self-fulfilling prophecy: game-buyers shun the PC as 'boring', software houses don't find PC games very lucrative, produce fewer of them, and so the PC really is boring.

Left to itself, the British market would probably never break out of this vicious circle. It's not going to be left to itself though, thanks to the totally different attitude to PCs that you'll find on the other side of the Atlantic.

In the USA, home computers have to do all manner of different tasks. People don't just want to play games: they want to do word processing, programming and any number of other things as well. Because of this need for versatility, and because US buyers are typically prepared to spend a good deal more than their British counterparts, the PC makes a natural machine for the American home.

The upshot of all this is that American software houses produce large numbers of PC games, and many of these are very high quality items. (You can check out the best of them, and some strong UK competition, on pp32-33.) Bearing in mind what *Dungeon Master* and *Interceptor* did for the ST and Amiga respectively, a few good imports could certainly help the PC's games reputation over here.

## ENCOURAGING

But why, you might reasonably ask, does it matter? At best a games-orientated PC could be almost as good a games machine as an ST or Amiga, and cost about the same. Is that really what the world needs?

In a word, yes. If graphically powerful PCs were available at a low enough price here, that would probably mean better games and more of them. The enormous American PC user base wouldn't just provide

## THE 8086 FAMILY

The PC series is based on Intel's 8086 family of chips. Dating from the late 1970s, the early members of this family took an inelegant approach to the problems of handling large memory sizes. It's hard to dispute that the 8086 is a poor chip for use in micros compared to Motorola's 68000: it's tougher to program, can't handle as much memory (only 1 Meg compared to the 68000's 16 Meg) and is slower at normal clock speeds.

The newer 80286 and 80386 chips are a good deal faster than the original 8086, but they cost more and are still complex beasts to program. The improvement is welcome, but comparable advances in the 68000 series keep Motorola ahead in the 'bangs per buck' stakes.

There's a school of thought to the effect that upgrading the 80x86 line still further is just throwing good money after bad. Why handicap new chips just in order to keep compatibility with old ones? With micro power increasing in leaps and bounds, it's possible for totally incompatible chips like the Inmos Transputer or Acorn ARM to run 8086 programs at a reasonable speed. These emulation techniques are already paying off for Archimedes users, who can expand their machine's meagre range of games with PC titles (see 'Catch 32', ACE issue 13).





# NATIVES

attractive imports, but also offer some very healthy overseas sales for games authors in this country.

With a multi-million machine world market – something neither the ST nor the Amiga has yet achieved – there'd be enough of a return for software houses to take their time developing games. They wouldn't have to top the charts to get their money back, because even the also-rans would be selling in vast numbers.

## INTERESTING

The terrific thing about compatibility is that it encourages software development. The bad thing about it is that once the software base has built up, it gets very tough for manufacturers to improve the machine design. Users would rather have an old, low-performance machine that runs the software than a revamped one that doesn't.

Unfortunately the original design of the IBM PC centred around Intel's 8086 family of central processors (see box), and with hindsight that was a very poor choice. While even the cheapest modern PC is a great deal faster than IBM's original machines, present day users are still paying the price for design decisions made some years ago. That said, the typical cut-price PC of today has more than enough processor power for most entertainment purposes: what it lacks is graphic power.

## GRAPHIC

Because of the PC's age, and because it wasn't exactly state-of-the-art when brand new, there was no real graphics standard included in its specification. This wasn't the disaster it sounded like: the PC's "open architecture" meant that you could plug in extra hardware later on if graphics became important.

If this hadn't been possible, the PC would probably be dead and buried by now. As it was, graphic add-ons soon became very big business indeed. A wide range of colour graphic standards appeared from various third-party manufacturers, but the three dominant ones all came from IBM: they were the Colour Graphics Adapter (CGA), the Enhanced Graphics Adapter (EGA) and the Video Graphics Array (VGA).

You can check out precise details on the different standards below, but the important points are as follows. VGA can do anything EGA can do, and EGA can do anything CGA can do, so there's no room for argument over which one's best. If you can afford VGA, get

it – but be warned, full VGA facilities call for very expensive monitors. Otherwise, go for EGA if you possibly can.

CGA is very poor stuff by modern standards, but for many PC buyers it's the only game in town. While EGA is gaining more and more ground with games writers, and is unquestionably a whole lot better, there's still no ultra-cheap machine available with built-in EGA. Until there is, serious gamers and budding computer artists will have to carry on paying the extra.

## CGA

The original PC colour graphics standard, CGA has looked rather creaky for quite a while now. Most games run on a four-colour 320x200 screen rather like the medium



PC 200 – The cheapest PC clone ever?

## THE PC 200

Just about the cheapest PC compatible ever sold in this country, the Sinclair Professional PC200 is a bog-standard 8086 machine with a 3.5" disk drive and a CGA display. The use of the Sinclair name suggests that Amstrad see the PC200 as a home machine and are trying to distance it from the parent label's new PC2000 range. It's not surprising then that the cheapest system, weighing in at around £344 including VAT, has no monitor and is fitted with a TV modulator.

In practice it's rather hard to see the benefits of such a set-up. Plugged into a TV, you lose the 80-column definition needed for most serious applications. In return you get a colour display, but that's small consolation given how poor CGA graphics tend to be.

With a monitor, the PC200 will doubtless be a very useful machine to have around for all the usual text-based applications. Its entertainment potential seems low, and anyone looking for an expandable machine would certainly do better with one of the roomier PC1512s or 1640s





resolution mode of the Amstrad CPC. The big weakness here is that there's no palette as such – just two colour schemes, either white-cyan-magenta-black or red-green-yellow-black. Most CGA games use the former scheme because of its higher contrast, but *Elite* got by very nicely in red, green and yellow.

Though it's primitive stuff even by 8-bit standards, the CGA screen does have one big advantage: it's very small. Small in memory terms, that is to say. The advantage here isn't in the space taken up – all PC display cards come with whatever memory they need – but in speed.

The main factor in a micro's speed as a games machine is its power to screen-size ratio. Most of the processor's time during a game goes on altering the contents of screen memory: clearly a more powerful processor can get this job done quicker, but equally a smaller screen (in memory terms) speeds things up by leaving the processor with less to do.

On the power front the typical PC central processor can't match the MAST machines' MC68000 (see box), but the CGA's tiny 16K screen more than makes up for this. By contrast the ST has to work with a whacking 32K for a full colour display, while the Amiga may have to handle upwards of 40K.

#### EGA

If CGA is curling up a little at the edges, EGA is still alive and kicking. As a games standard it's at least in the same league as the ST and Amiga, with a typical game mode of 320x200 pixels in 16 colours. The

## THE MAST MACHINES

In America the Macintosh, Amiga and ST – collectively known as the MAST machines – are commonly seen as the next step on from PC compatibles. They certainly offer more power for your money, and don't suffer from the PC's memory restrictions. That said, these 68000-based machines don't come anywhere near challenging the PC's vast user base even when the three of them are taken together.

The whole problem is that the three machines can't really be taken together. They've got incompatible hardware and disk formats, are aimed at different markets, and are built by fiercely protective manufacturers. They've also got different operating systems, and because these are based around WIMP front-ends they're all difficult things for programmers to get to grips with.

EGA-equipped PC does lose out on palette size – you only get 64 colours to choose from – but has useful high-resolution modes the 68000 machines can't match.

Of course, that kind of colour freedom and pixel resolution makes an EGA screen a pretty sizable thing. That doesn't mean EGA games run slowly mind you, even with a bog-standard 8MHz 8086 providing the power. The screen memory is very cleverly organised to help speed things up, so that for many purposes a 32K EGA screen can take less work to handle than its 16K CGA equivalent.

#### VGA

The hottest display standard around right now, VGA offers screens of up to 640x480 pixels in 16 colours out of 64, or 320x200 in 256 colours out of 250,000 odd. Both of these modes require high-class, high-price monitors, making them rather a small market for games authors at the moment.

The 256-colour mode has other problems too as far as game-writing goes. In particular, the screen is huge (64K) and there's no hardware help to reduce this burden. That kind of load would tax an ST severely, and a typical PC clone doesn't even have the power of an ST. The programmer's left with an unenviable choice: either (a) stick to game styles that don't need large, frequent screen alterations or (b) restrict their games to high-speed 80286 or 80386 machines, cutting the potential market still further. Not surprisingly, most people go for option (c) and stick to EGA modes, on the basis that the VGA can manage these too.

It's on the art side of things that the 256-colour mode really comes into its own. The potential here is enormous: while the Amiga may be able to manage more colours on screen at once, the VGA's freedom of colour use and enormous palette more than offset this. For ray-tracing or hand-painting it'd be a natural.

## THE PC2086

The cheapest of Amstrad's upmarket PC2000 series, the PC2086 offers VGA graphics at an impressively low price. A single drive system with high-res colour monitor will set you back a hefty £976 including VAT, but that set-up gives you VGA art power and EGA games potential. It also provides a great workhorse for all those useful, serious applications you'd normally associate with PCs. To justify spending so much money you're going to have to want that serious side of things – but you can still have great fun with *Deluxe Paint II* and *Falcon AT* after hours!

PC 2086 – VGA at a impressively low price





Armed with new  
**BOUNCE** power,  
PAC-MAN faces new  
challenges as he  
enters the worlds  
of Block Town,  
Pac-Man's Park,  
Sandbox Land  
and  
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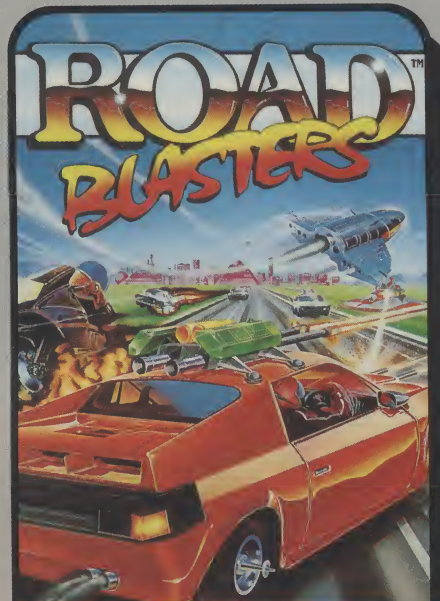


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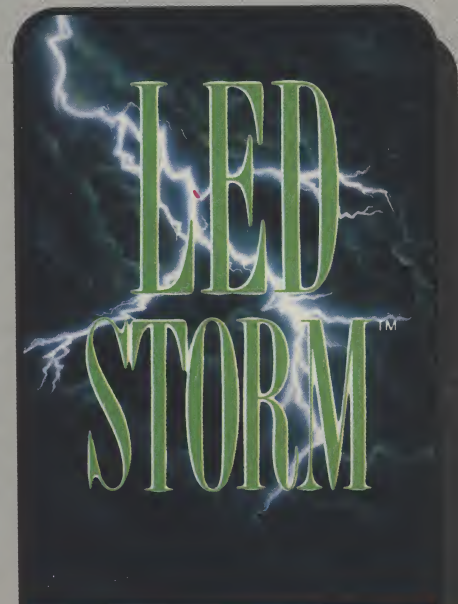
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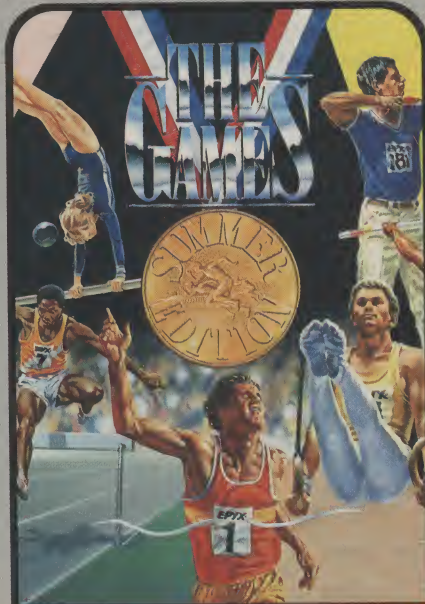


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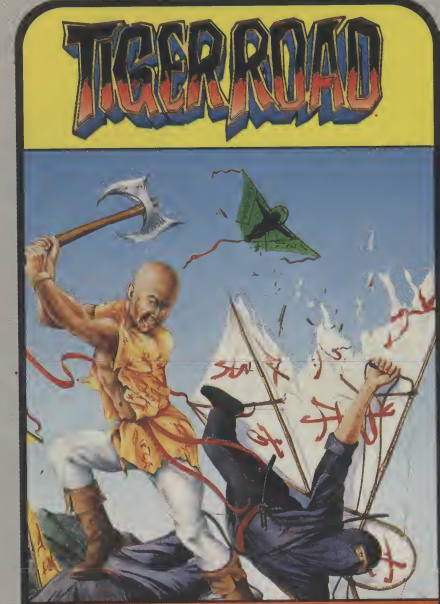


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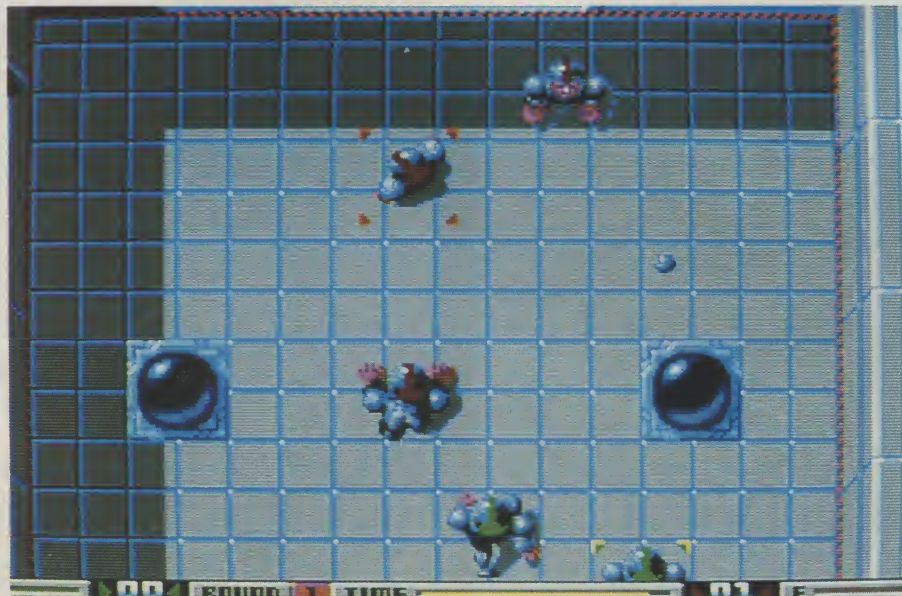
**T**he British public don't know quite what to make of PC games. If the PC belongs in the office, as most people seem to think it does, what are people doing producing leisure software for it? The odd pop-up, high fun-factor game like *Tetris* makes sense as an executive toy, and on the same basis you could understand adventures with 'boss mode' imitation spreadsheet displays. But what about great epics like *Elite* or *Driller*?

PC games certainly are strange things. While more and more of the big UK houses are converting their mainstream titles to the PC as a matter of course now, these are a recent phenomenon. There's usually little effort made to use the PC's power effectively, and the resulting games tend to make the PC look like an honorary 8-bit micro. The great classics of PC gaming hail from across the Atlantic. This isn't just a legacy of the machine's origins either: the driving force behind PC game development is still the



# THE SOFT UNDERBELLY OF THE PC

Never mind the hardware - what about the games? Whether you've got a super-fast 80386 machine with a £1,000 monitor, or just a Sinclair PC200 plugged into a telly, a PC's only as much fun as the software running on it. Andy Wilton investigates the games PCs play.



American market, and it's pushing things forward at an impressive pace.

## THE AMERICAN EFFECT

The PC may be a business machine as far as the British are concerned, but across the Atlantic it's big news in the games market. PC games are hardly a novelty in themselves of course - after all, the PC's been around longer than the Spectrum or the C64! What's making the headlines now is the explosion in EGA games, and the enormous improvement in graphics that this means.

A renaissance in PC games is long overdue. The average American PC is a powerful beast, some fair way upmarket of its British counterpart. Fast 80286 central processors are becoming increasingly common, and EGA capability is reckoned to be just about essential. Running a CGA game on this kind of equipment is like using an ST to emulate a Spectrum, so it's only natural that there's a big demand for better looking software.

That's not to say the CGA standard's been bad for the US games industry, mind you. While the obsession in Europe has been with brighter, faster, smoother graphics,

**The Bitmap Brothers' *Speed Ball* (Image-works) looks a whole lot better when your PC's got EGA graphics.**



(Left and below) The arrival of *Defender of the Crown* (Cinemaware) in EGA form shows just how far the standard's come on over the last year.



game authors in the States have looked to in-depth gameplay as a way of selling their wares.

The effort paid off: role-playing games have flourished, and text adventures are still going strong. Could *Seven Cities of Gold*, the *Ultima* series, or Infocom's *Zork* adventures have topped the charts in the UK? They did in America! You can see the same trend at work in the field of flight sims. Spectrum Holobyte's *Falcon* is immensely complex by UK standards, while Sublogic's definitive *Flight Simulator* series of games are so detailed they aren't really games at all.

### OLD GLORY

This depth reflects an important fact about the American computer market as a whole. Computer users in the States are a mature bunch by UK standards, typically in their 20s or 30s: Bob Jacob of Cinemaware reckons, 'The average person who buys one of our products in the US is probably about 32 years old.' This age factor is particularly pronounced with the PC because of its strong office presence: there's a significant 'knock-on' effect of people buying PCs to take work home to.

These older users tend to like brainy games with a lot of long-term appeal, and don't mind spending a few hours wading through a manual. US games players don't go in for hand-eye coordination and fast reaction games so much, partly because their reflexes just aren't up to teenage standards. They also care for a different type of subject matter: toy-related games are rare things in the States, while sports personality licences are much sought-after.

The problem with carefully wrought, heavyweight PC games is that they tend to look rather dreary. PC users will soon get to hear how good games like *Falcon* or *Ultima V* are, and won't be put off by rather uninspiring CGA screenshots. The same doesn't go for people thinking of buying PCs: no Spec-

trum or C64 owner is going to choose a PC over an ST or Amiga solely on the basis of some rather naff-looking screens and a glowing write-up. A classic game won't win upgraders over if it hides its light under a bushel.

Graphic advances can change all this, banishing the 'worthy but drab' image. At long last the heavyweight titles are getting EGA-ised, giving them the visual appeal they so richly deserve. They're being joined by new titles, and conversions from elsewhere in the 16-bit arena. Cinemaware, a software house you'd normally associate with the Amiga, are about to release their glossy Norman-basher *Defender of the Crown* for EGA PCs, and there must be plenty of others eyeing up that huge pool of potential buyers.

### OVER HERE

It's not just America that's getting on the EGA bandwagon: we're catching up in the UK too. Solid 3D merchants Realtime have taken a good look at EGA and VGA systems with a view to writing for them, though they say you're unlikely to see *Carrier Command* on the latter!

The Bitmap Brothers are another set of programmers working on EGA products, with the recently released *Speed Ball* shaping up as their PC debut. Bitmap PC expert Eric reckons that EGA's a very handy game standard, and makes for a far better *Speed Ball* than CGA could hope to manage.

Incentive's *Driller* made striking use of that 16-colour EGA screen too, turning an adventure-speed 8-bit classic into a cracking arcade-paced puzzler at the same time. The trend's even reached the continent now, with games like Chip's 900-rated *Joan of Arc* appearing in EGA PC form. The strong graphics potential could even lure those

## THE EGA REVOLUTION

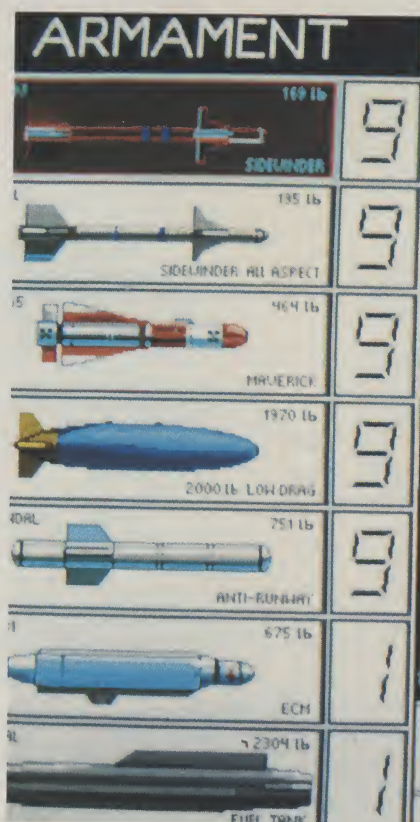
For details on the EGA (Enhanced Graphics Adapter) display, you'll have to leaf back a couple of pages. In a nutshell though, EGA gives the PC a 16-colour high-resolution screen to rival ST or Amiga displays. It also provides cunning hardware help, allowing games to update the screen faster than would normally be possible.

visually orientated French and German programmers away from their Amigas.

### WHAT NEXT?

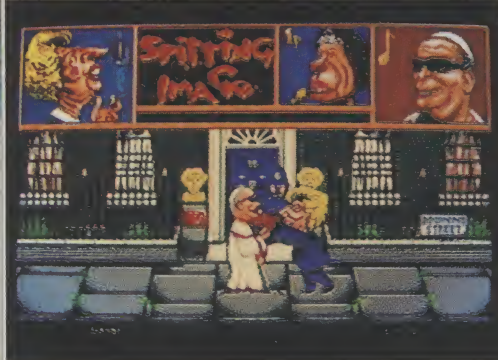
The hope now is that the EGA PC will become an automatic second or third choice 16-bit machine, getting conversions of major games almost automatically. This process will take time: after all, the Amiga had a struggle for a while back there and ST games will port directly over to it. Converting a 68000 game over to a PC is an enormous task by comparison.

For the time being, EGA machines are the exception rather than the rule in this country. Eventually standards will move on as they have done in the US, so that CGA falls by the wayside and EGA becomes the minimum acceptable set-up. The potential rewards are vast: sales into the US market could give UK software houses a huge boost, if they can provide the depth and realism that American gamers demand.



In four colour CGA, *Falcon* (Spectrum Holobyte) was a game for purists. In 16, *Falcon AT* is great stuff all round.





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# LICENSED TO CLONE

Imitation: it's been going on for years. Chaucer and Shakespeare collected up other people's stories and re-worked them, each producing similar versions of *Troilus* and *Criseyde/Cressida* for example. But *Troilus* wasn't a coin-op, and nobody minded much.

Nowadays, pop producers are sampling recordings, borrowing other people's sounds as well as other people's tunes. Software publishers, too, draw inspiration from each other's work, sometimes to the point of abject plagiarism. In 'the trade' corporate piracy of ideas and licences is a hotter issue than home piracy nowadays... With the big companies relying more and more on arcade licences to provide the hits, they're getting aggressively protective about what they regard as their 'property'. But the record of time reveals that the sinned against are as much the software sinners, as we discover...

Official versions of coin-op games stand a good chance of cleaning up at Christmas, to the point where smaller software houses that concentrate on original games can't get a look-in during the festive season. No wonder licence-holders are tetchy about protecting their rights.

Recently, Activision has been getting fiercely protective of its *R-Type* licence, scrutinising five games from other software houses (hardly surprising, when one *Katakis* demo apparently featured a message from the programmers to the effect of 'thank you to *R-Type* and the inspiration it has given us').

A month or so ago, US Gold withdrew *Great Giana Sisters* following pressure from Nintendo who felt it looked a bit too much like *Super Mario Brothers*. Wearing the boot on the other foot, US Gold prompted Elite to make noises about libel after making claims that *Overlander* bore too striking a resemblance to its coin-op licence, *Roadblasters*.

Last year there was a *Breakout* Revival. The official licence to *Arkanoid* acquired by Imagine met up with *Krakout*, *Addictaball*, *Batty*, and *Giganoid* along with a host of others that led a French magazine to review sixteen games that bore a striking resemblance to *Arkanoid*, and admit that they hadn't covered all the possibilities. Ironically, while the owners of the official *Arkanoid* licence growled in defence to their rights, the coin-op company which had sold them the licence was itself sued by the people who brought *Super Breakout* into the arcades. Funny old world, isn't it?

## THE OLD, OLD STORY

The only thing that is new, is the fuss. The entertainment software industry came into being with back-bedroom clones of existing

games, and as it grew, it fuelled itself by drawing 'unofficial' inspiration from existing products. For a long time, people didn't even think about buying licences.

Despite today's legal shenanigans, publishers and programmers are set to keep on cloning – or least borrowing and re-working ideas. Maybe there really are only a handful of basic game ideas, which are bound to crop up again and again, or maybe the creative spark that brought games like *Valhalla*, *Knight Lore* and *Manic Miner* has been extinguished by the scramble for coin-op licensing opportunities.

The naughtiness began right at the start, when the first home computers were released. Many of the captains of today's

software industry who are now getting a hot under the collar about clones were involved in small software enterprises that began by selling totally unofficial versions of games like *Space Invaders*. Rod Cousens of Activision, for instance, began his career in the software industry with *Quicksilver*, but more of that later... Programmers now earning very tidy livings from producing official arcade conversions often learnt their craft adopting and adapting games they had seen in the arcades, with never a whiff of a licence agreement in the air.

Industry veteran Andrew Hewson recalls the early days: "It simply didn't occur to people that there was any kind of problem with rights. Everyone was doing versions of arcade games, so you just joined in."

Some companies changed the gameplay and fiddled with the title – like *Interceptor*, with *Krazy Kong*, PSS with *Crazy Kong*, or Artic with *Monkey Bizness* – even Ocean started that way, but at least they were the first company to buy the an arcade licence (for *Hunchback*, with Superior Software who went for the BBC rights). Others just went out and cloned shamelessly. Like Quicksilver, who produced *Defender*, *Invaders*, *QS Scramble*, *Asteroids* and *Galaxians*.

As official licences were acquired, direct cloning of 'classic' games continued. Just before its demise, Mikro-Gen was preparing to launch a series of budget 'arcade classics', and a few years ago Bubble Bus had the same idea, releasing *Classic Muncher* as a budget *Pacman*. Classic cloning still hasn't died out. About a year ago, Firebird released *Arcade Classics* and enjoyed great success with its quartet of clones – *Space Invaders*, *Asteroids*, *Snakes* and *Space Wars* – which apparently became one of its top-selling budget titles. And not an official licence in sight.

**"Larger companies, like ourselves and Activision are beginning to realise that if you're going to pay large amounts of cash for licences, you're not going to put up with other firm's duplication of the game." David Baxter, US Gold.**

Firebird's version of *Space Invaders*





## SEEKING INSPIRATION

Looking to the arcades for inspiration was common in the early days of games programming, as David Llewellyn of Walking Circles (nee Design Design and Crystal) recalls: "When we started Crystal nobody thought two hoots about bringing out *Space Invaders* and calling their game *Space Invaders*. We didn't do exact copies, but borrowed here and there." *Tank Busters* owed quite a lot to *Battlezone*, and then the line vector routines from *Tank Busters* were improved and adapted for a space game, which appeared a little while after the arrival of *Star Wars* in the arcades: *Dark Star*.

"In those days, we were just kids getting on with it", David remembers, "every now and again we heard of someone being warned off but we were a bit naive – for instance, we wrote a game and called it *Nemesis*, not even knowing that there was an arcade game with that name. It would have cost a lot of money to fight the issue in court, whether we won or lost the case, so we called the game *Nexor*."

**"You must have heard it said that there are only six jokes in the world, and every joke is directly related to one of those six. Well, there are probably only six or seven games in the world too."** Steve Wilcox, Elite

If challenged, companies tended to back off. Microdeal, for instance, ran up against Activision with *Cuthbert in the Jungle*, as John Symes remembers: "they said our game was a copy, and that they were going to sue. Talking to our solicitors, we learnt that it would probably cost us £18,000 to go to court, before we got a decision, so we said okay, we'll kick it into touch." In the absence of legal aid for companies, as John points out, a large company can bankrupt a small one before a case gets to court.

John still believes that you shouldn't be able to copyright an idea. "Copyright exists in the artistic content – if someone copies game graphics then there's reason for people to get upset."

Atari was amongst the first companies to get protective about the rights to a game – in 1982, it produced a version of *Pacman* for its consoles, and started making noises about home computer clones of the game. Bug Byte was warned off and withdrew *Vicman*, while arch hardware rivals Commodore got into a spot of bother with Atari over *Jelly Wars*.

The cloning continued, however, in a fairly unashamed manner. *Pacman* is one of the 'great game themes', which has appeared over and over again – while Grand Slam has done the decent thing and collected official licences to the more recent *Pacman* arcade machines, other companies have continued to borrow Pacinspiration, right up to US Gold with their recent *Pepsi Mad Mix Challenge* game, reviewed this issue.



**Giganoid: judged to be 'a mirror image' of Arkanoid in Issue 12**

## SOFTWARE PROTECTION

Buying arcade rights has become a highly competitive and expensive business. Leading software publishers bid against each other for the opportunity to produce the official version of coin-op games; the stakes are high, and are getting higher. Last year, for instance, the *Out Run* licence is rumoured to have cost US Gold in the region of £250,000 – add in the cost of programming five versions,

tot up the advertising bills, count in the expense of producing the disks, tapes, inlays and so on, and you realise that an awful lot of US Gold money was riding on the success or failure of the title.

Publishers need to sell a lot of units in order to recoup that sort of investment, and they are understandably wary of having an expensive hit title undermined by a 'clone', or 'lookalike' game produced without a licence. The arguments that there's plenty of room for everyone, or that a real fan of an arcade game will buy the official version along with unofficial versions doesn't convince the owners of expensive licences.

Last year, there was a fair bit of up-front sabre-rattling in Computer Trade Weekly, the industry newspaper – several companies announced the acquisition of licences with aggressive adverts pointing out that their solicitors would be watching for clones. This year the issue has gone slightly more public.

But where does drawing inspiration end and cloning begin? Were programmers such as John Ritman and Steve Crow guilty of

## THE SAGA OF MONOPOLY

Arcade games were not the only source of inspiration in the early days of the software industry. Traditional entertainments, such as card games and board games were converted for the home computer in droves. Clearly, no-one owns the rights to chess, draughts or bridge – they are 'in the public domain' and anyone can come up with a computerised version without fear of alienating someone who holds rights.

Property-trading games, like chess, go back a long way – as far back as Egyptian times – but Monopoly, produced in this country by Waddingtons under licence since the 1930's, has enjoyed a monopoly on commercial property-trading boardgames for around fifty years. In the early 1980's, a handful of software houses produced monopoly-style property-trading games without approaching Waddingtons. Waddingtons got upset – even though the US Appeal court had ruled that Parker Brothers, the company that granted Waddingtons their Monopoly licence, had no right to the 'Monopoly' trading name, and despite the fact that property-trading games have a long history.

In the Museum of Childhood in Edinburgh, for instance, there's a boxed boardgame called *Brer Fox an' Brer Rabbit* which was manufactured in 1910 by Newbie games. It has a square board with a Treasury in the centre, proper-



ties are ranged around the edges of the board, Public Services are featured, players have to deal with a Go To Jail square and collect £200 for completing a circuit of the board. Sound familiar? And this game was on commercial release some 20 years before American boardgame giants Parker Brothers bought up the rights to three games – one called Monopoly and two others on which it was based, *The Landlord's Game* and *Finance*.

In May 1983, Mel Croucher and Christian Penfold released a game called *Automonopoly* on the Spectrum – published by their company Automata, it was just one of a number of computerised property-trading games released around that time. Waddingtons reacted with an injunction, so Automata changed the name to *Go To Jail*. Late in 1983, just as the peak Christmas selling period was looming, Waddingtons threatened Automata with another injunction, to prevent the marketing of *Go To Jail*.

Automata made it clear that they intended to fight, defending

their case on the grounds that their computer game was not based on Monopoly, but on a tradition of property-trading games that was nearly as old as chess. The injunction was withdrawn 'at the doors of the High Court' according to Mel Croucher, and about six months later it became clear that Waddingtons didn't intend to take the matter any further. By this time, most of the other small software companies backed off, however, withdrawing their property-trading games. Sadly, the boss of one such software house committed suicide around that time – the pressures of running Rabbit Software became too much for Alan Savage, one of the first casualties of the entertainment software industry.

Nowadays Leisure Genius publish the official, licensed version of Waddingtons' Monopoly, and have the market to themselves.

Interestingly, between April and November 1983 a period when the 'opoli' computer games were selling well, sales of the Monopoly board game also went very well for Waddingtons, apparently increasing by 36% over the same period in the previous year, so the argument that imitation is not only the sincerest form of flattery, but actually increases sales may have some grounding...



plagiarism with *Batman* and *Wizard's Lair*, or were they just programming in the Ultimate School in much the same way as Monet painted in the Impressionist style? And does the same hold true of Rainbow Arts, the people behind *Great Giana Sisters* and a number of other 'lookalikes'?

Personalities come into copyright rows, too, it seems. Mark Cale of System 3 had a spot of bother in the States over *International Karate*, which Data East thought resembled their arcade game *Karate Champ*. "I think that might have been a personal thing between Data East and Epyx (who released IK in the States). The men were different and the moves were different, but there is only so much you can do in a Karate game - karate is karate, after all", Mark observes.

So long as the theme for a game is in the public domain - like chess, backgammon,

traditional cardgames or sports - there can't be much of a case for copyright infringement. Or can there? Monopoly caused quite a row five years ago (see box). Sometimes it's difficult to determine who owns what - as in the case of the *Arkanoid/Super Breakout* row that broke out in the arcades after the *Arkanoid* licence had been sold for home computer conversion.

Activision had the rights to *Rampage*, bought from the coin-op company, and then US Gold came up with *Ramparts* while Gremlin were working on *T-Wrecks* (now to be released as part of a licensing deal with the manufacturers of Chewits). Three games involving monsters smashing the place up, but where does the copyright lie? As Ian Stuart of Gremlin points out, Chewits have been running a commercial that stars a *Rampage*-type monster for fifteen years.

There's certainly an element of publicly flexing corporate muscle in the disputes about licences, along with the desire to nurture the fruits of an expensive licence deal. Sometimes the big boys can co-exist in harmony, as happened with US Gold's *Gauntlet*, Firebird's *Druid* and Electric Dreams' *Dandy*. Sometimes they fall out. And sometimes they don't care - like Ultimate, who did nothing about the host of imitators that fol-

lowed leaders like *Knight Lore*, *Atic Atac* and *Sabrewulf*. But then Ultimate came from the arcades in the first place, made their money and went back...

## ALTERNATIVE STRATEGIES

Spending money on a licence nowadays is a speculative investment, a form of venture capitalism in effect, with work often subcontracted to programmers. No wonder the giants of the software industry are protective of their rights. Under British copyright law, as it exists at the moment, taking action is expensive and the outcome against a clone arranger is uncertain.

One strategy that no-one has tried yet is to buy an licence, announce the acquisition to the trade and sit tight. After six months or so, several companies would have produced clones from the coin-op, so the licence holder could step in, annexe the best version for publication and issue injunctions on all the others, thereby saving all the expense and hassle of hiring programmers...

**"We will not tolerate infringement of our copyright. To prove this requires an enormous amount of work and time - often looking at games frame by frame - but we are willing to do it." Rod Cousens, Activision**

## THE WOLF PACK

The 'military shoot-em-up' is hardly new to the home computer or the coin-op machine, and Operation Wolf is the most recent in a line of soldier-killers that include *Commando* and *Ikari Warriors*. This Christmas, Ocean is set to wow shoot-em-up fans with its official licence of Taito's machine-gun mayhem game. This issue, Screen Test looks at Wolf from Ocean, and also casts a critical eye over two other games that could easily have been inspired by the arcade machine: *POW* and *Veteran*. But where does the chain end? Operation Wolf itself is hardly amazingly original...

Gary Bracey of Ocean is philosophical - it's highly unlikely that Ocean will be rushing off to the courts to take action against Wolf-like games. "It's a shame", he comments, "we're paying for a licence, and other people may be cashing in on the back of the arcade machine's success, but we don't feel too threatened by it". Ocean's line seems to be that they will pass on any potential Wolf clones to Taito rather than take action themselves.

Gary Bracey's strategy in the clone wars is to produce the best game, making

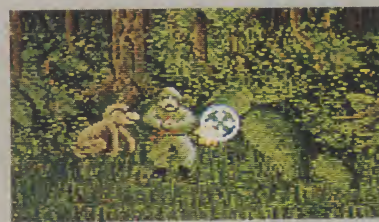
sure that any Ocean licence makes unofficial imitators look just like pale imitations. "We've tried to get as close as possible to the feel of Operation Wolf - you can't do games like *WEC Le Mans*, *Outrun* and *Wolf* and actually simulate the controls, but we've got as close as possible. Our game stands up - we've created the feel and atmosphere of the coin-op in so far as it is possible to do so."

He's not too impressed by *Veteran* "to be very objective, our game stands up well in comparison - we've got better graphics, better control", nor is he too worried by *POW* "we saw it a while ago, and again didn't feel too threatened - it's all small sprites in the distance."

Mungo Amyatt-Leir of Software Horizons, the people behind *Veteran*, can see some similarities between his game and *Operation Wolf*: "Obviously, it has a similar type of gameplay - nobody can deny that". But it seems unlikely that any arcade cloning has taken place... "Our programmer lives and works in Yugoslavia, and I doubt he's had the opportunity to play the arcade machine. The brief we gave him was to make an exciting 3D commando shoot-em-up, and *Veteran* is just what he came up with."

Actionware's Howard Newmark sighs when he is asked about *POW* in the context of *Operation Wolf*. "It's going back to the same old subject", he says, "like how many different types of Karate game are there, or how many different types of game can you have that involve using a gun. *POW* is certainly not plagiarised from *Operation Wolf*". Although he admits that *POW* might have drawn some inspiration from games like *Wolf*, Howard Newmark points out that it was being designed and written months ago as a game to go with Actionware's lightgun peripheral.

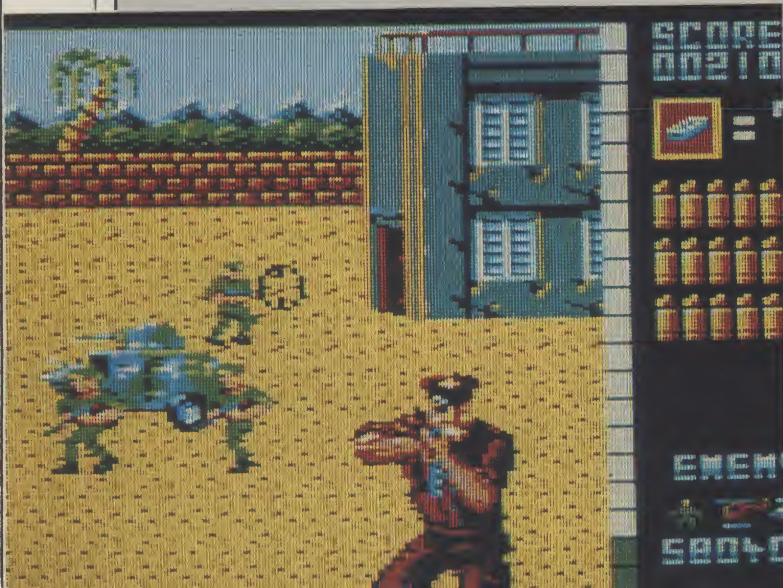
It seems unlikely that Software Horizons or Actionware set out to clone *Wolf* (for a start, it could be argued that they would have done a much better job). As Mungo Amyatt-Leir says "It's quite a popular game theme at the moment, to kill a lot of people, and you can't really licence a game theme. The problem in the marketplace at the moment is to come up with an original theme that is popular with the public."



(Top left) *Veteran*.

(Above) *P.O.W.*

(Left) *Operation Wolf*





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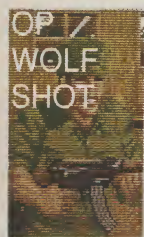
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# SCREEN TEST

Welcome, to the biggest Screen Test section ever. It's not just big either, it's absolutely bursting with headlining games that will make this the hottest Christmas yet. There are no less than six 900 rated games and another five that got close, scoring over 800.

Among them, are some classic coin-op conversions for which we have devised an additional rating – the new **Arcade Accuracy** rating indicates just how well the programmers have managed to reproduce the graphics, sound and overall feel of an arcade game, given the limitations of the machine been converted for. It doesn't reflect how good a computer game the conversion is: for that you still refer to the ACE Rating. *Operation Wolf*, *R-Type* and *SDI* are the pick of the month's conversions - great programming, great games.

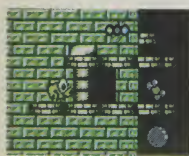


There are some fantastic original titles in the form of *Powerdrome* - futuristic racing action; *Bombuzal* - a puzzle game set to be a classic; and *Joan of Arc* - a marvellous strategy game. They all weigh in with 900 ratings. Still not enough for you? Well, how about the pick of the updates, as *Nebulus* and *Driller*



arrive on the ST and Amiga to rave receptions? Role-players are in for a treat as well, with *Pool of Radiance* also busting the 900 barrier.

It's the biggest and it's full of the best, enjoy.



## THE RATINGS

### HOW they're calculated...

If you buy a game, how much enjoyment will you get out of it, and for how long? Just check out our revolutionary PIC (Predicted Interest Curve) for the full story. Brilliant arcade games start high on the curve, and then steadily tail off as you lose interest; powerful puzzle games may ride the crest of the



curve for months – but the moment you solve them they'll come tumbling down; complex strategy games may stump you at first – but climb up the scale as you begin to appreciate the scope of the gameplay. And as for the turkeys – they start low, stay low, and have nowhere to go but down, down, down.

Once you've seen how long the game can hold your attention,

all you need to glance at is the renowned ACE RATING. This is calculated according to the area under the PIC. The bigger it is, the better the game. Add to that our definitive ratings for IQ Factor (will it give your brain cells a workout?) and Fun Factor – a measure of instant appeal and exhilaration

as you dive into the game. And, of course, we rate the Graphics and Audio effects too...for EVERY machine the game's available on.

### WHY you can rely on them...

The ACE reviewing team covers a broad spectrum of computer entertainment talent. Andy Wilton – ACE's resident technical wizz – is as handy with a smart bomb as he is with hexadecimal. Andy Smith wouldn't know hexadecimal from a hole in the ground, but can wipe the floor with any number of aliens.

Rod Lawton prefers to reason with aliens – then shoot them. Bob Wade (ex-Personal Computer Games, Zzap!64 and Amstrad Action) has played more computer games than any sane person ought to. Add Graeme Kidd, who joins us this month as Editor with a background in computer games that's nearly as wide as his waist is round (he started with Central TV – but remember him on CRASH or The Games Machine? read him in Your Sinclair or The One? Enough said).

Every game on the following pages has been seen by all of us. We compare notes, express differing opinions, and only then do we decide who's to take final responsibility for getting our views into print. What follows, then, isn't just a collection of casual comments, but the definitive ACE verdict on this month's software. We've checked it out – now you can too.

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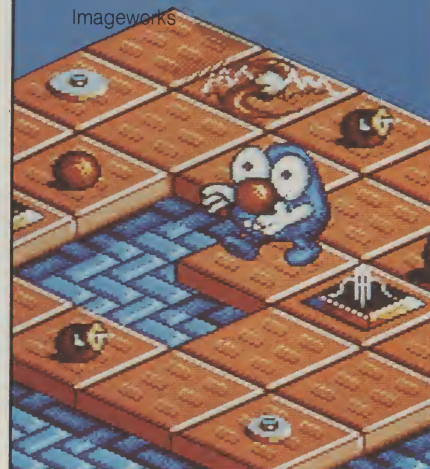
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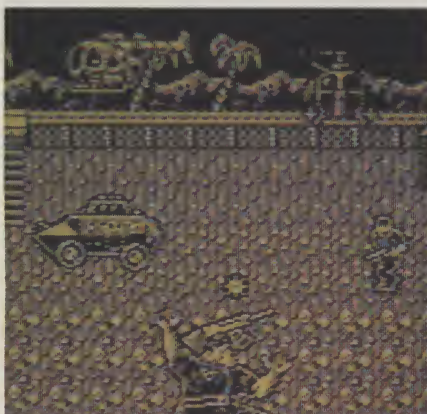




## SCREEN TEST



**C64 version** - If you run out of rockets you can always revert to pumping machine gun fire into the tanks.



**Spectrum version** - your damage meter has reached the top. Another hit and you'll be finished, here.



**C64 version** - out of ammo! Line up on that magazine and hope you hit it with one of the few free shots you're given.

# OPERATION WO

## OCEAN spray bullets

**OR** 'Op Wolf' as it's lovingly known by the thousands of arcade fans who've had amusement halls up and down the country ringing to the sound of hundreds of machine guns bratt-a-tat-tatting. The official version of the game has been a while coming to the home micro, but now the 8-bit versions are complete with ST and Amiga due to follow shortly for an all-formats release. Has Ocean managed to capture the excitement of the coin-op?

The game is divided into six stages and your prime directive is to get to the fifth stage, rescue the hostages held there in a concentration camp and make sure they all get aboard a getaway plane that's found in stage six.

Armed with a machine gun and a fistful of rockets, you have to shoot and blast away at the enemy, killing as many of them as you can before they shoot you. Each horizon-

tally-scrolling stage contains a detachment of enemy forces which has to be blown away before the section is complete. Larger opponents in the form of tanks, helicopters and gun boats back up the foot soldiers, and can only be destroyed with multiple bullet hits or a single rocket.

Targeting the enemy involves moving a crosshair sight around the screen. Hitting the fire button changes the cursor into a bullet hole (or a line of dust spitting up from the floor, if your aim is not that good). Setting out with seven magazines of bullets and five grenades, you are under-equipped - so resist the urge to keep the button pressed as you try to wipe everything out, and make sure to pick up ammunition as you go. This can prove to be tricky at times, because you have to shoot the extra ammo clips and rockets that are lying on floor before they go scrolling off the screen. If the enemy is ganging up on the screen, you have to decide whether you can last until the next clip appears, when you might have fewer opponents on screen and less chance of sustaining hits. Small animals scurry across the screen, and are an extra source of ammunition - if you manage to shoot them you're awarded with extra ammo.

A meter monitors your health, diminishing as you take hits and falling dramatically if you blow away one of the non-combatant natives, nurses or hostages. Shooting small bottles of medicine on the ground reduces your damage level, and completing a section allows for a bit of restorative R&R. Other extras that appear on the ground include sticks of dynamite which act like smart bombs, clearing the screen if you shoot them.

**Stage one on the Amstrad** - with no rockets remaining and five tanks and four helicopters left to destroy, your chances are slim.



### C64 VERSION

The only one of the three reviewed here that gives you the option to play with either mouse or joystick. Playing with the mouse is the easier option, but you do get more ammo and grenades at the start of the game if you play with joystick. The collision detection is the tightest on the C64 so you can find yourself shooting through the gap between baddies' legs if you're not careful. Playing on joystick is very tough to begin with, but like most things perseverance pays off.

**GRAPHICS** 9 **IQ FACTOR** 1  
**AUDIO** 8 **FUN FACTOR** 9  
**ACE RATING** 894

### AMSTRAD VERSION

The most colourful and with the fastest scroll of the 8-bit lot which affects the gameplay quite a bit if you've played the other versions. Terrific, if very mindless, fun.

**GRAPHICS** 9 **IQ FACTOR** 1  
**AUDIO** 7 **FUN FACTOR** 9  
**ACE RATING** 894

### SPECTRUM VERSION

The graphics are all in monochrome (though the colour changes for each stage) so it can be tough to see the baddies sometimes. The game loads in one go on 128K machines but is multi-load on 48K machines. You'll find yourself playing this for a long time to come - even if you manage to complete it you'll find yourself coming back whenever you feel the urge to blast away at some baddies.

**GRAPHICS** 8 **IQ FACTOR** 1  
**AUDIO** 6 **FUN FACTOR** 9  
**ACE RATING** 887





Stage two on the Spectrum - you've just destroyed one gun boat and you've one more rocket left for the other one.

# WOLF

The stages get progressively harder. After Stage Three some of the baddies get cunning and start wearing bullet-proof vests, so you have to shoot them in the head to despatch them.

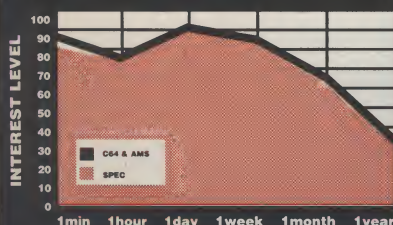
Operation Wolf was never a game to test your brain power - it's undiluted mayhem and mass murder all the way. The 8-bit versions of the game are surprisingly faithful to the original coin-op: not only has all the action and gameplay been captured, but so has the excitement, making it one of the most satisfying and compulsive shoot-em-ups to have appeared in a long time.

● Andy Smith

## RELEASE BOX

ATARI ST	£19.95dk	IMMINENT
AMIGA	£24.95dk	IMMINENT
IBM PC	£19.95dk	IMMINENT
C64/128	£9.95cs £14.95dk	REVIEWED
SPECTRUM	£8.95cs £14.95dk	REVIEWED
AMSTRAD	£9.95cs £14.99dk	REVIEWED

## PREDICTED INTEREST CURVE



It's not easy to get the hang of, but master the controls and you're hooked



C64 version - at the start of level one. Don't shoot the nurse!

(Far right) C64 version - with no rockets left, it looks like that helicopter's going to force you to retreat.



## UPDATE SPECIAL

## SPACE HARRIER I and II

ST ● Elite £19.99dk each

**SPACE** *Harrier* is one of the fastest, most colourful and action-packed arcade games around. On the home computer, it was very successful in its 8-bit forms and is proving just as good in its ST incarnations.

*Harrier* takes the interesting perspective of having everything coming straight at you out of the screen. You control a man with a jet-pack who can fly anywhere around the screen and shoots from the hip with a laser.

The landscape rushes forwards, bringing static ground objects and all sorts of alien waves straight at you. With the ground objects it's a simple matter of seeing them coming and getting the hell out of the way or blasting them if they're destructible.

The aliens of course aren't such a simple matter. Not only do they follow many different movement patterns but they also shoot accurately, and can come zipping onto the screen from right next to you or gradually advance from the far distance. This element of perspective is what makes the game so enjoyable and yet so difficult. No matter where they are in terms of perspective the aliens can still shoot at you.

There's a very impressive collection of

aliens to deal with, although they haven't been altered much for the additional data disk. They range from massive gun-toting robots to bouncing oranges that look like the alien from the film *Dark Star*. At the end of each level is a massive guardian that has to be hit many times before it expires.

The basic game is certainly a great one for sheer speed and zapping action. *Space Harrier II* - essentially a second data disk - doesn't really offer much that is new, but fans will probably enjoy the extra challenge.

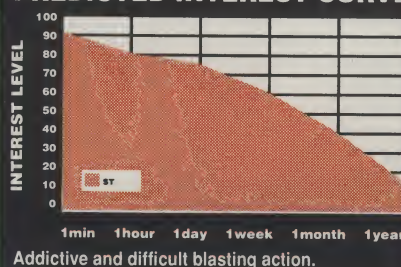
● Bob Wade

## ATARI ST VERSION

The sprites are giant-sized and move very fast - too fast at times. It makes excellent use of colour and has some superbly designed aliens. The music is good and there are competent blasting effects.

GRAPHICS 9 IQ FACTOR 1  
AUDIO 7 FUN FACTOR 8  
ACE RATING 729

## PREDICTED INTEREST CURVE



## ARCADE ACCURACY



Obviously the ST offers the closest of all the conversions and has all the colour, speed and challenge of the arcade version.

COIN OP SCORE 9

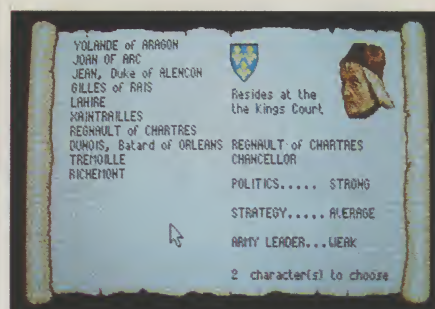
Big, bad robots are just one of the many awkward aliens.



Fortunately there isn't any of that distasteful burning at the stake nonsense in this game. Instead, it concentrates on the battle to crown a King of France and rid the French countryside of the scourge of the English invaders.

After a history of events presented in a pleasant storybook form, you're shown a map of France that reveals the current political lie of the land and the location of armies. Joan of Arc commands an army that is alone and under attack. You take the role of Charles, heir to the throne and can control Joan's army. The first objective is to gain the throne, which involves conquering Orleans and Reims.

The main game menu offers seven options, but at the start, all that is available is



A list of the French characters currently available to you. On the right are the attributes of one of them. Clearly he's a good man to send on a diplomatic mission.

the option to commence a campaign by moving the army commanded by Joan and attacking other armies or towns. Armies meet in combat on the open field, while conquering a town or fortress is a matter of fighting your way inside.

In open field combat you use icons to control soldiers, archers, cavalry and bombards. Generally, weight of numbers will triumph, but a lot can depend on factors such as the weather, who's got the high ground and when you commit the forces. Attacking towns is more arcade-based. First there a combat sequence where you have got to fight past several soldiers at the gates, then the walls must be scaled, avoiding the rocks and boiling oil thrown down at you. The situation is reversed when someone attacks one of your towns - you defend the wall by throwing rocks and oil.

Failure to gain the crown results in Joan being pensioned off and the game ending, but as King you can access the other options on the menu and the real game begins. The King has to liberate the whole of France from the control of English and other rebel forces, and all the commands at your disposal need to be used: diplomacy, espionage, helping hand, Royal Treasury, Royal Justice, raising a

## RELEASE BOX

ATARI ST	£19.99dk	OUT NOW
AMIGA	£24.99dk	IMMINENT
IBM PC	£19.99dk	OUT NOW
No 8-bit versions planned		



# JOAN OF ARC

A well-done game from RAINBOW ARTS



(Above) The initial map of France showing Joan of Arc's army as the blue flag, and French held territory in blue. The icons at the right access the option menus.

(Inset above) Battling your way into the castle you have to have swordfights with several soldiers and avoid the arrows, in order to get to the gate.

(Right) The battlefield where armies collide. All the figures are tiny, but the action is cleverly put together as the various groups of soldiers, archers and cavalry clash.

## ATARI ST VERSION

The graphics and presentation are very slick and atmospheric indeed, rivalling *Defender of the Crown* for quality. The still pictures and animation all look good, but there isn't much sound and no music at all. One problem is the disk accessing which leads to pauses between the action, but this niggle doesn't harm the gameplay much.

**GRAPHICS 8 IQ FACTOR 7**  
**AUDIO 2 FUN FACTOR 6**  
**ACE RATING 912**

## IBM PC VERSION

The EGA graphics are comparable with the ST's and all the gameplay operates in exactly the same manner. The CGA version doesn't look half as good but still plays just fine.

**GRAPHICS 8(4) IQ FACTOR 7**  
**AUDIO 2 FUN FACTOR 6**  
**ACE RATING 912**



Royal Army and starting a campaign.

Most options involve dealing with the game's 30-odd characters. These split into three main groups: French characters, English and other potential hostiles, and six spies. Each character has strengths for politics, strategy, and as an army leader. Good politicians are useful for diplomatic negotiations for the release of prisoners, peace treaties and alliances. Good army leaders are obviously good commanders for campaigns, while strategy appears to affect most things...

The attributes of the spies are somewhat different, because you use them for espionage

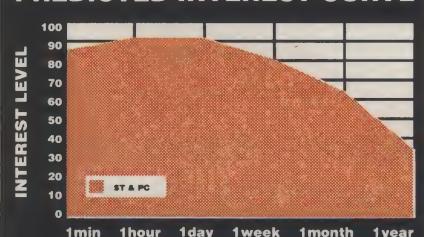
and as a 'helping hand'. Espionage can reveal what's happening all over the country, while the helping hand is a sinister option, that allows the King to bump off or kidnap opponents. If an opponent has been captured, you can dispense some Royal Justice and execute him. French characters can also be arrested and executed, or pardoned if you're in a good mood.

The Royal Treasury is absolutely vital because you can't pay armies, spies or anyone else if you haven't got the loot. The only way to get cash is to impose tithes on the provinces controlled by the King - don't be too harsh, and remember that one type of tithe has to be collected at the appropriate time of year; miss the moment, and you're in trouble.

There's an obvious comparison with *Defender of the Crown*, and *Joan of Arc* wins convincingly. As well as the arcade sequences, the strategy side of the game is well thought out. When you become King the game isn't over - it has only just begun, and it gets better and better.

● Bob Wade

## PREDICTED INTEREST CURVE



Plenty to do right from the start and the depth to last as well.



# Tadio Rimes

## CHRISTMAS & NEW YEAR

ABC **1**

### 9.00am SAVAGE

First out of the stocking this Christmas has to be **SAVAGE**. An epic of gargantuan proportions in three mind blowing action packed levels.

Savage features graphics so stunning they'll put your Christmas tree lights to shame!

Spectrum cassette £8.99

Commodore 64 cassette

£9.99, disc £12.99

Amstrad cassette £8.99,  
disc £14.99



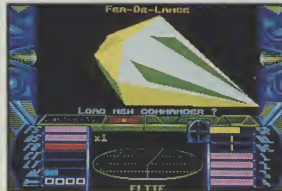
Amstrad screen shot

### 11.00am ELITE

Intergalactic action hits the 16-bit screen with a bang as the all time classic **ELITE** explodes into solid 3D splendour. Be warned, this game is so addictive you'll be up all night... and Santa won't leave any goodies if you don't get to bed on time!

Atari ST £24.95

Amiga £24.95



Atari ST screen shot

### 3.00pm DYNAMIC DUO

Going underground takes on a new meaning as you battle through pitch black tunnels and passageways in search of wealth beyond your wildest imagination. But beware of lurking monsters with no sense of tradition, it's duck not turkey on their Christmas menu.

Spectrum cassette £7.99

Commodore 64 cassette

£9.99, disc £12.99

Amstrad cassette £8.99,  
disc £14.99



Amstrad screen shot

### 6.00pm BLAZING BARRELS

Christmas just wouldn't be the same without a rip-roarin' Western. So Firebird are proud to present, fresh from their famous ICOM studios, **BLAZING BARRELS**, featuring the all star cast of...

Bammo

THE MEXICAN BANDITO

TNT Tom

THE REALLY BAD GUY

You, alias Black Jake

THE BOUNTY HUNTER

Atari ST £19.99

Amiga £19.99



Atari ST screen shot

### 9.00pm EXPLODING FIST +

When the snow starts a-falling and the wind starts a-howling there's nothing better to warm up those frost bitten fingers than the blistering heat of **EXPLODING FIST +**.

If you're feeling guilty after stuffing your face with all that Christmas turkey, here's your chance to get back into shape — or get kicked into the middle of the New Year!

Spectrum cassette £7.99

Commodore 64 cassette

£9.99, disc £12.99

Commodore 64 screen shot



**EXPLODING FIST**

**HANDLE WITH CARE**

Soon to be hitting your screens on...  
Commodore 64 cassette ..... £8.99  
Commodore 64 disc ..... £12.99  
Spectrum cassette ..... £7.99

Telecomsoft, First Floor, 64-76 New Oxford St, London WC1A 1PS.  
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**FIREBIRD**

A LEGEND IN GAMES SOFTWARE

Sequel to the blockbuster  
**WAY OF THE EXPLODING FIST!**

## Christmas Viewing



For mail order please send your order and remittance (cheques payable to British Telecom plc or direct debit from Access/Visa card by stating number and expiry date) to:  
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A LEGEND IN GAMES SOFTWARE



925

Imagine a game that has the sort of mouse control found in *Ferrari Formula One*, but with up and down controls thrown in as well. A game that takes you into a whole new dimension of race games and provides a vision of the future along the way.

Essentially, this is like any other race game. You're taking part in a championship run over six races against four computer opponents. The tracks and weather conditions vary, and pit stops are available – the difference is that the tracks go underground, loop-the-loop and even try to crush your craft. The weather includes particle storms and ammonia and sulphur atmospheres. As for the pit stops, they consist of replacing large chunks of the ship, which takes a battering from ram-

**There's a tight left turn coming up – can you sneak past that guy in front of you?**  
**INSET: Fly under that bridge and you'll be plunged into shadow, emerging into the light on the other side.**



# POWERDROME

ELECTRONIC ARTS pedal to the metal

ming into the walls and floor.

The six tracks will test anybody's flying skills because they twist and turn all over the shop. There are thin gaps to squeeze through, walls that close in, and tight hairpins both horizontally and vertically. At first they seem impossible, but practising and modifying your highly-responsive ship will soon change that.

The ship has many variables that affect the way it performs, including different fuel mixtures, aileron sizes, brake sizes, pitch-roll settings and filters. The filters are necessary for flying through different atmospheres like ammonia and methane – pick the wrong one and the engines won't perform at all well in a hostile atmosphere.

Flying round the course you'll inevitably bump into the walls, floors and ceilings. Eventually, bits of the ship get damaged, and the damage starts to affect the controls. With both wings bust and the nosecone in tatters, the craft steers like a supermarket trolley with all four wheels headed in different directions. The only way to cure this is to make a pit stop.

The pits are a very hi-tech affair where damaged body parts can be replaced, fuel taken on board and data on the race accessed. You can also modify the trim of the craft to make it handle better, although this is

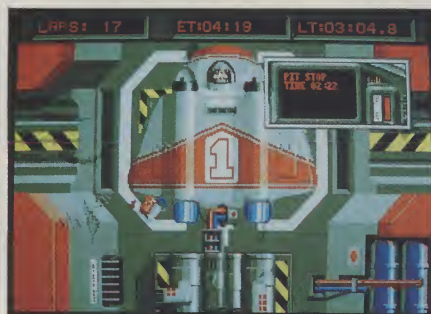
best done during the qualifying session, rather than during a race.

The other competitors are of varying quality but it's going to be no easy thing to beat any of them, let alone win a race. As for winning the championship that's one of the tallest orders going. If the computer-controlled racers



**You're at the back of the grid at the start. As soon as the lights change you've got to whack on the engines and race to that first corner.**

**The pit screen where you can replace bits of the craft and get refuelled.**



aren't challenging enough, you can use the datalink option to hook up to another ST or Amiga and fly against a human player.

The controls are pretty tough to get used to, but right from the start you'll be hooked on it and have the hang of things after half-an-hour's play. A classic concept, beautifully implemented and which will have you totally absorbed for months.

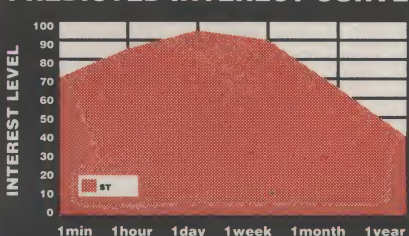
● Bob Wade

## ATARI ST VERSION

The graphics give an excellent impression of speed and movement, and you can toss the ship around in all sorts of ways. You actually need to sit back from the monitor to get the best effect. You'll be throwing yourself around with the ship as it banks, climbs and dives. The real disappointment is the sound – it's lousy. Turn it off and enjoy the game without it.

**GRAPHICS 9 IQ FACTOR 4**  
**AUDIO 2 FUN FACTOR 7**  
**ACE RATING 925**

## PREDICTED INTEREST CURVE



It's a beast to start with but it's always got that special something that keeps you at it.

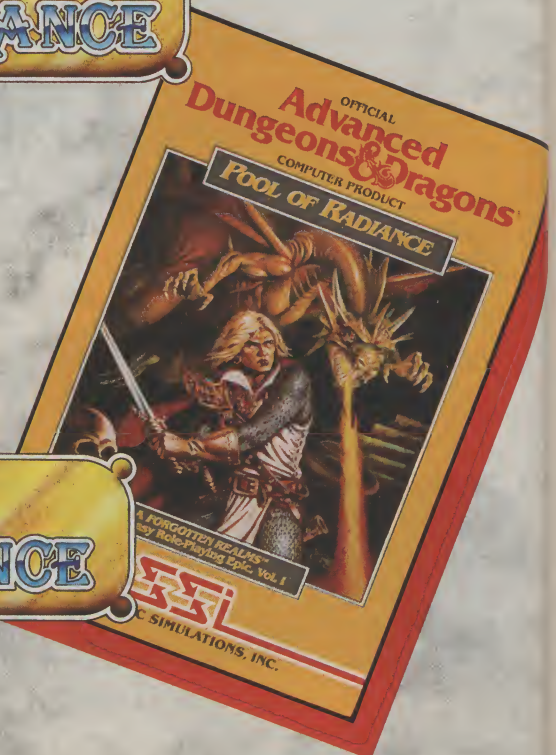
RELEASE BOX		
ATARI ST	£24.95	OUT NOW
AMIGA	£24.95	EARLY '89
IBM PC	£24.95	SPRING '89



OFFICIAL  
**Advanced Dungeons & Dragons**  
COMPUTER PRODUCT



**HEROES  
OF THE LANCE**



**POOL  
OF RADIANCE**





**HISTORY** will never be the same again. Who ever heard of Zeppelins, rocket men, lunarium and moon bases during World War II? Put reality on hold when strapping on your rocket pack because all manner of strange things are going to happen, in fact the further you get the weirder things become.

At first it looks like you're in for a fairly conventional WWII setting, as Hitler rants away on the opening screen. This impression rapidly evaporates as your first task is to put on a rocket pack and chase a Zeppelin across the Atlantic ocean from America. This is just one part of the main mission to stop Nazi Germany conquering the whole world. They're doing it using lunarium bombs - produced from mines on the moon. To stop them you will have to get to the moon and destroy the base.

To get to the moon you have to find the five parts that make up a moon rocket, steal enough lunarium to fuel it and meanwhile stop the Zeppelin fleet from invading America. To achieve this you have to complete many action sequences jetting around the world as Rocket Ranger, and also the strategy elements from your home base at Fort Dix.

In the war room you have a map of the world and five agents. Each agent can be sent to a country to infiltrate it. They will send back information on what is there - lunarium supplies, rocket parts or other potential targets. They can also organize resistance to slow down the Nazi advance. Unfortunately they can also be discovered and killed, so use them carefully because without them it's very difficult to track down all the rocket parts.

Once RR has loaded up with lunarium in the rocket pack he has to go through a take-off sequence at Fort Dix. This isn't easy, particularly with a heavy fuel load, but it's essential you practice it because failure wastes a lot of time. You get three attempts at taking off, and you'll be glad of them. Which action sequence you get depends on which location you fly to. The journey happens automatically and depends on how much fuel you put in the pack. Choose the wrong amount and you'll end up splashing down in the ocean and ending the game.

#### RELEASE BOX

AMIGA	£29.99dk	REVIEWED
ATARI ST	£24.99dk	JANUARY

#### AMIGA VERSION

The graphics and animation are out of this world. There's a tremendous range of scenes that get the best out of the Amiga. The music and effects are also excellent. There's also some digitised speech. Great entertainment value, but still tends towards frustrating repetition.

GRAPHICS	9	IQ FACTOR	6
AUDIO	7	FUN FACTOR	8
ACE RATING 814			



After a bruising fist fight you've knocked out the Nazi guard and can escape with one of the five rocket parts.

# ROCKET RANGER

CINEMAWARE at full thrust



The war room is where you can use your five agents. A rocket factory has been found in the middle east and the Zeppelin fleet is busy conquering Europe.



You're in the foreground and have to shoot the gunners in the temple. Get them all and you'll get lots of lunarium.



Can you convince the professor and his daughter that your intentions are good?

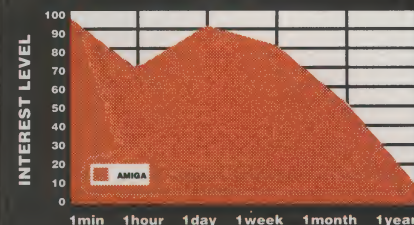
There are two types of aerial combat, one against squadrons of Messerschmidt 109's and the other strafing ground based ack-ack guns. On the ground there's a gun battle with guards in a ruined temple and hand-to-hand combat with soldiers guarding the rocket parts. You aren't given much help on how to complete them at first, but the tactics are relatively easy. However, every time you complete a sequence it gets harder the next time you attempt it.

The sub-plot that runs throughout the game is to rescue Professor Otto Barnstorff and his daughter from the Nazis. This will considerably reduce the Nazis efficiency but is not essential to completing the game.

This is probably the best Cinemaware game yet, blending superb graphics with arcade action and strategy. There's enough variety and depth to it to keep you interested, although the pace of the game is still slow because you have to go through a lot of graphic sequences where you do nothing.

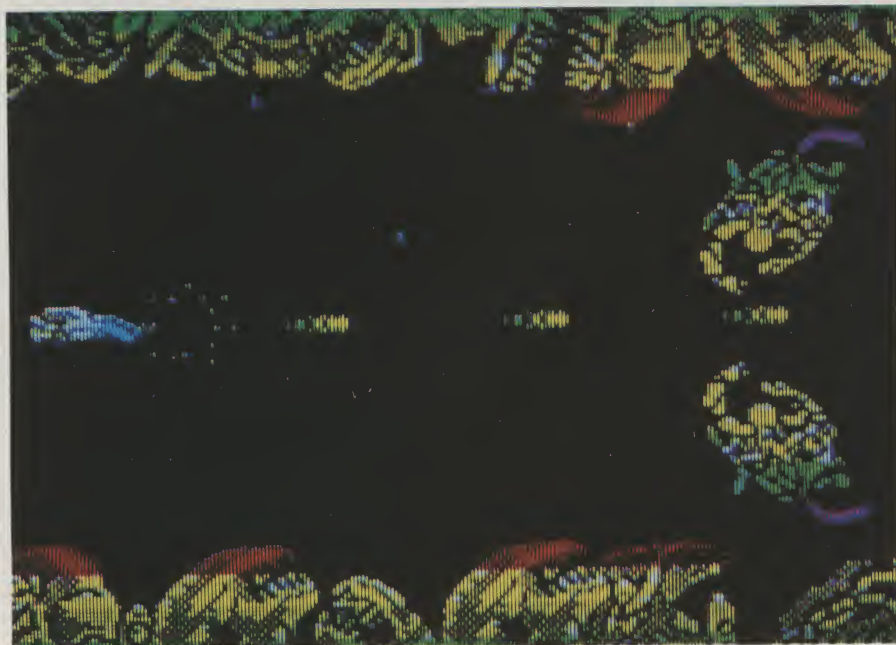
● Bob Wade

#### PREDICTED INTEREST CURVE



Some sequences aren't well explained, but it's a cracker when you know what you're doing.





# R-TYPE

The genuine article from  
ELECTRIC DREAMS

## RELEASE BOX

ATARI ST	£24.99dk	IMMINENT
AMIGA	t.b.a	
C64/128	£9.99cs • £14.99dk	IMMINENT
SPECTRUM	£9.99cs	REVIEWED
AMSTRAD	£9.99cs • £14.99dk	IMMINENT

## ARCADE ACCURACY



A superb conversion, with little (if anything) missing from the game.

COIN OP SCORE 9

## SPECTRUM VERSION

One thing R-Type doesn't lack, even on the Spectrum, is colour. The sound effects are just about what you'd expect from a Spectrum. What you wouldn't expect is just how close the programmers have managed to get to the original coin-op. It's maddeningly addictive and guaranteed to give you a sore trigger finger.

GRAPHICS 9 IQ FACTOR 1  
AUDIO 6 FUN FACTOR 9  
ACE RATING 871

(Above) Pumping away with your laser at the start of level two.

(Below) Hold the fire button and you get a super dooper laser bolt.

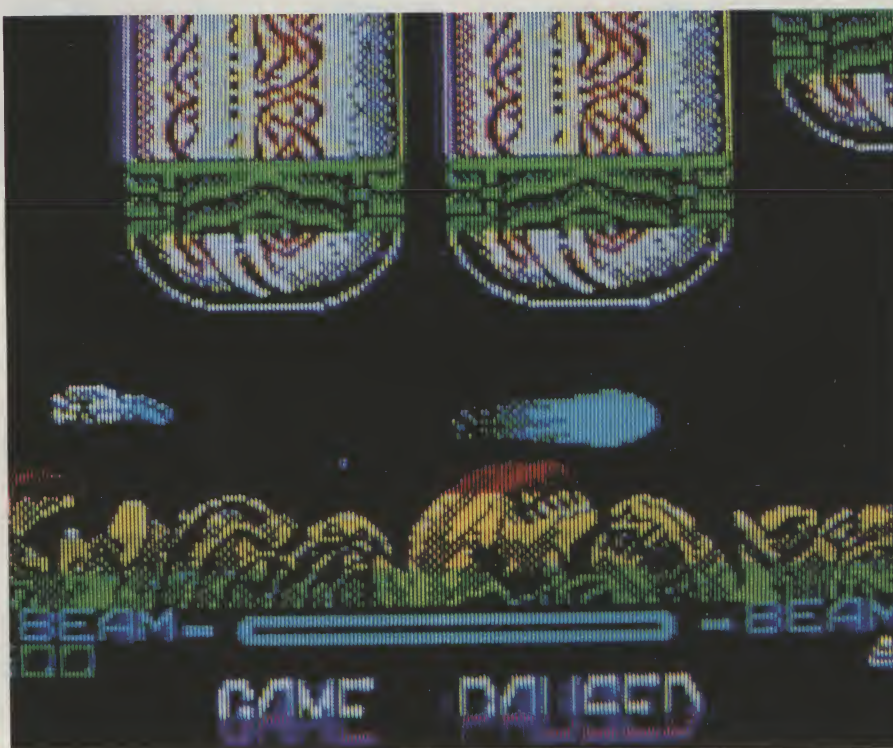


The front of the third end-of-level guardian (and you thought the last one was tough!)

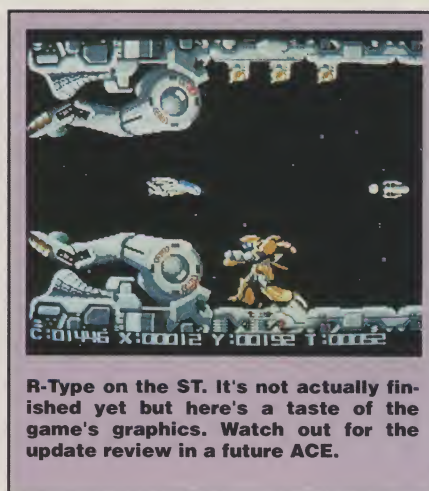


(Above) The middle of the third end of level guardian. Keep firing! Keep firing!

(Below) You've got really big bullets now, but only one life left.







**R-Type on the ST. It's not actually finished yet but here's a taste of the game's graphics. Watch out for the update review in a future ACE.**

◀(Inset) The second end of level guardian. He's proved too much for you this time...

(Main picture) ...but now you've got the measure of him. Being able to detach your probe is especially helpful here.

**ACE** first brought you news of this Irem coin-op way back in Issue One. Now, some 15 months on, Electric Dreams have completed the home micro conversions.

Controlling an R-9 interstellar attack craft out to exact revenge against the evil Bydo Empire, you travel through eight increasingly difficult stages, dealing death against a horizontally-scrolling background (each section loads separately). In each stage there's a multitude of flying enemy ships and ground-based gun emplacements to contend with, and of course an end-of-level guardian to dispose of before progressing to the next level.

The action commences with your craft equipped with a front-firing gun which can operate in two modes: tapping the fire button releases small laser bolts, while holding the

fire button down causes a meter just below the main playing area to start creeping up. If you release the button as the meter reaches the top, a more powerful laser bolt is fired – well handy when you come up against tougher baddies who can take more hits before blowing up.

Extra weapons are available if you manage to shoot the small harmless creatures that hop across the screen and then pick up the tokens they leave behind.

One of the most useful add-on weapons is the probe. This ball-like object comes onto the screen from left to right and fires a shot whenever your ship does. Collect the probe, and it can be placed to the front or the back of your ship where it acts like a shield. Hitting the spacebar on the keyboard detaches the probe from your ship, sending it to the front or

back, depending on where it was first attached – this is a handy move when you're up against one of the end-of-level guardians because they each have a vulnerable spot that you need to shoot and it's usually in an awkward place. Hitting the spacebar again returns the probe to your ship.

Other weapons include three-way laser shots, which beef up the fire power of your probe, and homing missiles. Extra weapons collected from the earlier stages are lost whenever you lose a life.

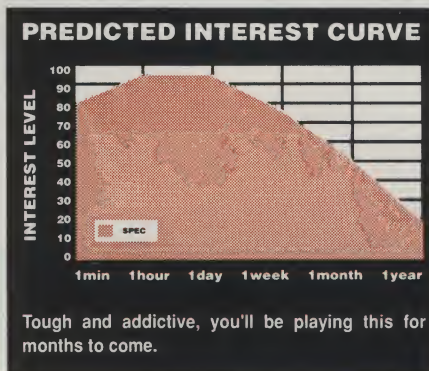
Up to 25 ships are available to complete the game with – you have a total of five credits, and each credit buys five ships. Once the fifth ship in a series has been lost, you have ten seconds to press the fire button and continue the game from the last restart position with another five ships (doing that costs you one of your five credits), or you can elect to start back at the beginning again.

R-Type is a superb coin-op game and Electric Dreams have done a remarkable conversion job. The gameplay is terrific, the graphics are great and it's tough and addictive enough to keep you playing for a long time. R-Type doesn't win any prizes for originality, but for sheer speed, addictive gameplay and manic action it's a winner.

● Andy Smith

◀(Inset) Collect some tokens and your firepower is greatly increased.

(Main picture) Go for that white token!





# SENTINEL WORLDS 1: FUTURE MAGIC

ELECTRONIC ARTS send in the cadets

**I**n control of an Interceptor Class spacecraft and its crew, you are told to sort out a spot of trouble out in the colonies. Transporters shipping from Caldorre and Norjaenn to new outposts in the Rouyn and Mistassini systems have been attacked by Raider ships that appear from nowhere, take no prisoners and disappear before they can be identified. It is your job to find out who they are, and put a stop to their activities.

The initial briefing is rudely interrupted by an attack, and you are suddenly seated in front of the spacecraft command screen.

It is immediately obvious that, despite the Star Trek plot, *Sentinel Worlds 1: Future Magic* is no full-3D battle-simulation demanding instant reactions on the old fire button. Indeed play is rather more represen-

tative of future combat: as soon as an enemy craft appears, simply press one key for 'shadow' and another for 'lasers' and let the ship's computer take over. It's all a bit boring as you sit back and watch the fireworks, drawn in a particularly low-res fashion.

Despite appearances, you have considerable control over the outcome, as the Communications Officer can 'hack' into the computer's programs, tailoring them to the situation's requirements. The degree of success depends on her (no sexism here!) experience level - which is where the Role Playing Game (RPG) elements come in.

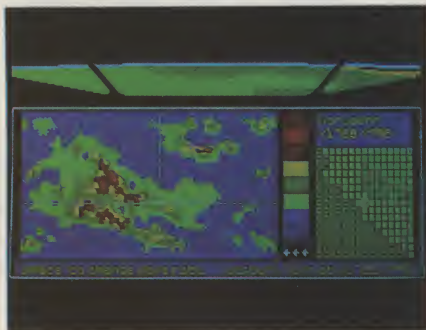
In true RPG fashion, each crew member has Strength, Stamina, Dexterity, Comprehension and Charisma points - enhanced by Experience gained through the game. At the

start, the crew is a pretty puny bunch, so the immediate concern is money, which is needed to buy fuel, extra training, and weapons. This is where the fun really starts, as you go planetside to carry out scientific missions (700 credits apiece), mine minerals, and meet natives - some of whom might know about the mysterious Raiders.

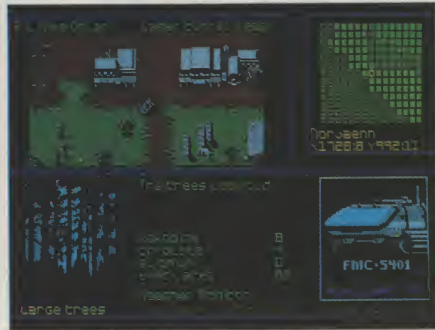
Colourful places are to be found in this galaxy, from the Metropolis-style Utopia of the Caldorre Towers to the distinctively Western outback flavour of Norjaenn. Most of the characters are pretty shallow but occasionally, particularly as your crew gains experience, you meet someone who can reveal a bit more about what's going on. With luck, from time to time you are referred to a paragraph from the 'Paragraphs' booklet supplied with the game, and take another step towards solving the mystery.

*Sentinel Worlds 1* is unusual in bringing together a well-implemented RPG system of character development and exploration with a real mystery demanding considerable detective work. The action sequences are pretty weak and of course the sound up to the PC's usual appalling standard, but perhaps it is a bit early to expect *Starglider 2* realism combined with a plot of this com-

In orbit above Norjaenn - you don't get this range of colour on a CGA monitor!



On the surface in your ATV, about to explore the delights of Western Town



You've entered a local hostelry and engaged the owner in conversation



# TYPHOON

IMAGINE go carrier-bagging



Stage 2. Those attacking aircraft look pretty mean, but they're going to be the least of your worries...

**BLOW** along in this tough airborne blast, complete with six levels of ever-escalating action.

Things start off quite tame, with an *Afterburner*-style sequence of shooting waves of enemy aircraft attacking head-on, and missile-dodging. At this early stage you don't lose any of your initial five lives if you get hit, but neither do you get any points...

After a short time, the scene moves to

the skies above an aircraft carrier. Head-on still, you're faced with the same job of dodging missiles, but you now have to shoot the missile launcher on the aircraft carrier. Not too difficult once you know how to time it, but the missiles rob you of a life if they make contact.

Once you've destroyed the aircraft carrier the scene changes and the game becomes a vertically-scrolling shoot-em-up where you pilot an armoured helicopter doing battle with attacking helicopters, jets and anti-aircraft turrets. Apart from your front-firing guns you can also drop bombs ('B

## RELEASE BOX

<b>SPECTRUM</b>	£7.95cs £14.95dk	OUT NOW
<b>AMSTRAD</b>	£8.95cs £14.95dk	IMMINENT
<b>C64/128</b>	£8.95cs £12.95dk	IMMINENT

## SPECTRUM VERSION

The graphics are fair, with smooth scrolling, and the sound effects are good. Combined with action that's tough and unremitting and a wide range of attackers to contend with, it's a sure-fire recipe for success. Tough, but fair - and plenty to do!

<b>GRAPHICS</b>	<b>6</b>	<b>IQ FACTOR</b>	<b>3</b>
<b>AUDIO</b>	<b>7</b>	<b>FUN FACTOR</b>	<b>8</b>

**ACE RATING 654**



plexity. Some of the graphics look pretty good on an EGA display, but if you have to put up with CGA be warned – the game has obviously been designed for EGA and can get downright confusing at times. The main shortcoming is the inordinately slow response time to the keyboard – almost unforgivable on a 16-bit machine.

It may be a bit rough round the edges, but Sentinel World 1 is certainly a step in an interesting direction.

● Matt Nicholson

#### RELEASE BOX

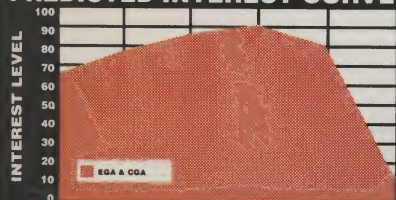
IBM PC £24.95dk REVIEWED

#### IBM PC

Aside from the weak combat sequences, most of the graphics take full advantage of the Atari ST-standard graphics offered by EGA – particularly as you roam the planet surfaces. The CGA display, on the other hand, is simply not up to the planetside graphics, and some of the text can be hard to read. The game is still very playable though.

GRAPHICS 8(3) IQ FACTOR 8  
AUDIO 6 FUN FACTOR 3  
ACE RATING 880

#### PREDICTED INTEREST CURVE



Complicated at first, but utterly addictive when you discover the main plot

#### ARCADE ACCURACY



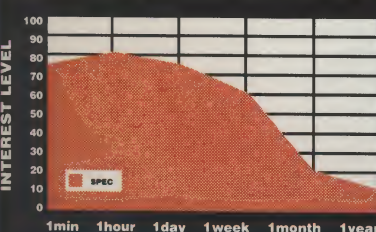
The head-on sequences were never going to have worked well on the Spectrum, but otherwise the game has been translated accurately.

COIN OP SCORE 6

on the keyboard) and smart bombs ('M' – one per life). And look out for collectable weapons, while you're at it.

● Rod Lawton

#### PREDICTED INTEREST CURVE



Tough enough to last

# MENACE

## PSYGNOSIS blast the opposition

**THE** inhabitants of Draconia have got to be some of the most ghostly, malevolent and fearsome creatures this side of a DHSS office. They inhabit an 'unnatural' planet formed by six of the 'most feared rulers that have ever existed'. Apparently, a large scale attack would prove too costly, so it's down to you to fly your craft through six increasingly difficult levels in an attempt to destroy Draconia – what do you mean, you've heard it all before?

Psygnosis make no bones about this being yet another arcade blast – and indeed, it's been done very competently. Each hit you take from the monsters that zoom in to attack reduces the strength of your shield. Shoot all the aliens in a wave and a '1000 points' symbol appears. Either collect the bonus, or shoot the symbol first, to cycle it through a range of benefits that include cannons, lasers, increased speed, drones, temporary invulnerability – and shield replenishment.

At the end of each level is the now obli-

gatory end-of-level guardian, and fire is traded until one of you bites the dust. Success with a guardian moves play on to the next level with all your benefits intact – vital, as the levels get harder.

There's nothing to tax the old grey cells one iota, but there is that short term addictiveness central to all good arcade games. You'll either fight through the six levels or lose interest quite soon, though, so don't expect to be playing it months from now.

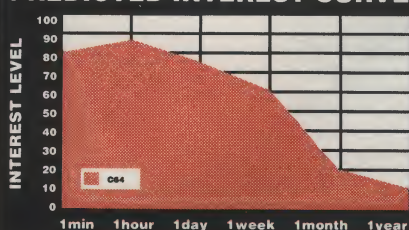
● Rod Lawton

#### AMIGA VERSION

Both sound and graphics are up to the usual 16-bit standards, but alas the gameplay remains stubbornly 8-bit. The action is fast and furious, but no better than the other half a dozen other good Amiga shoot-em-ups currently available.

GRAPHICS 7 IQ FACTOR 2  
AUDIO 7 FUN FACTOR 8  
ACE RATING 678

#### PREDICTED INTEREST CURVE



Good short-term fun

You're at the end of level 1 and up against a nasty alien monster throwing all sorts of... well, things... at you. Your shield's good, though, and you've picked up a juicy extra weapon along the way.

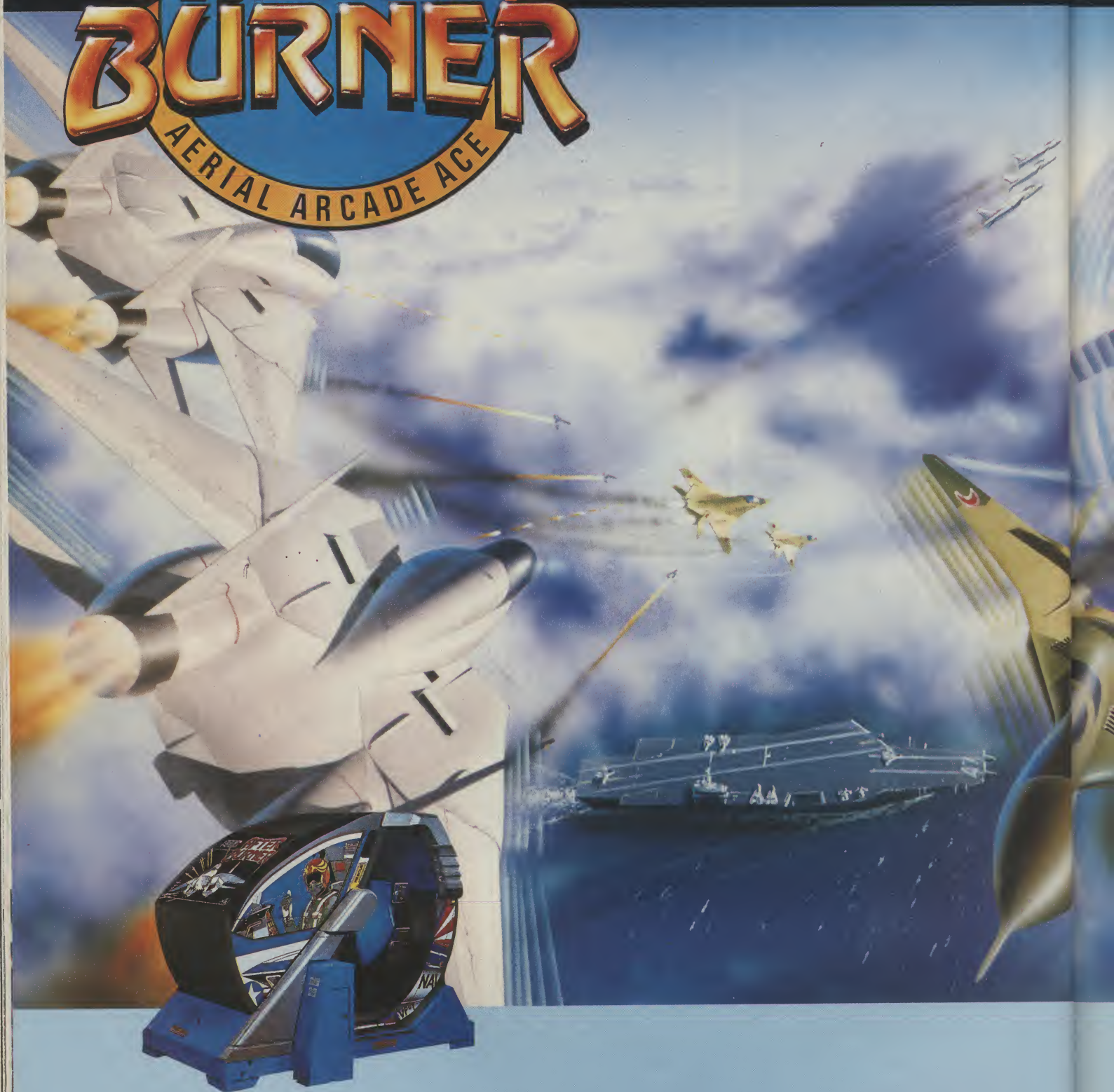




# AFTERBURNER

AERIAL ARCADE ACE

# SHAKE. WA



**ACTIVISION**

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**AFTERBURNER – 'THE ARCAEN**

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Available on C64 cassette (£9.99) and disk (£14.99), Spectrum (£12 Amst

Amiga (£24 and M



# RATTLE. ROLL IT..



Amiga screen shots shown



ST screen shots shown

## CONDENSATION OF THE YEAR'

**AFTERBURNER** – You've played the arcade **smash** – now **experience** the white-knuckled **realism** of a supersonic **dogfight** at home! Using your heat-seeking **missiles** and laser anti-aircraft **fire**, can you be **top gun** against a seething supersonic **swarm**?

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(£12.99) Amstrad cassette (£9.99) and disk (£14.99), Atari ST (£24.99),

(£24.99) and MSX (£9.99).



# HOSTAGES

INFOGRAMES' captive audience

**INTERNATIONAL** terrorism Is the subject of this French blend of strategy and arcade action. A group of hardened terrorists have taken control of an embassy and are holding several hostages for ransom. As the head of a crack French SAS squad, it's down to you to 'neutralise' the terrorists and free the hostages.

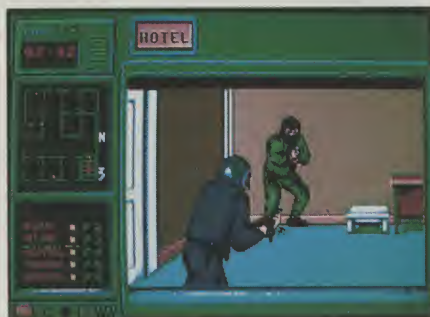
The game breaks down into three sections. The first part of the game is concerned with guiding three of your team to pre-marked positions outside the embassy. These chaps are your marksmen who'll watch the embassy windows. Once you've positioned the marksmen, a helicopter drops off three more men who you have to guide down the outside of the embassy and in through the windows. Once inside, you have to clear the three floors of terrorists and rescue the hostages before taking them one by one to a 'safe' room for collection.

## RELEASE BOX

ATARI ST	£24.95dk	OUT NOW
AMIGA	£24.95dk	IMMINENT
No other versions planned		



Terrorist searchlights silhouette one of your marksmen in the first stage...



Commando Hotel confronts a terrorist inside the Embassy.

## ATARI ST VERSION

Each section is drawn, animated and put together very well, giving a very atmospheric feel. Sadly this does little to dispel the general impression that a lot of French games have great graphics but precious little in the way of meaty gameplay.

GRAPHICS	9	IQ FACTOR	4
AUDIO	8	FUN FACTOR	7
ACE RATING 689			

Several difficulty levels affect the amount of time you have to complete the mission. Though the nature of the game may be a little dodgy, it's fun to play and will have you on the edge of your seat for the most part. However, once the novelty of the graphics has worn off you'll find that there's actually very little gameplay and after you've completed it a few times you'll be looking for a fresh challenge.

● Andy Smith

## PREDICTED INTEREST CURVE



**WHAT'S** a Corona Bubble doing, getting fizzical in the Pepsi Mad Mix game? Well, this cute, grinning little bubble has gone undercover, changed drinks and called himself Mad. What more do you need to know?

Poor old Mad finds himself in the Pepsi Village, a sequence of fifteen tricky mazes, and his task in life is to stomp through the corridors gobbling up bubbles lying on the floor. And if the bubbles remind you of Power Pills, you won't be surprised to learn that a quartet of ghosts also roam the streets of Pepsitown.

There's no fruit to gobble up - after all,

## RELEASE BOX

SPECT	£7.99cs • £11.99dk	REVIEWED
C64/128	£7.99cs • £11.99dk	OUT NOW
AMS	£7.99cs • £11.99dk	OUT NOW
ATARI ST	£14.99dk	IMMINENT
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## SPECTRUM VERSION

Mediocre - no wicka wicka sound effects as to bubble' gather, and despite the embellishments, little more than a competent pacman clone. Competent, but zzzz unless you really want to win a prize from Pepsi/US Gold.

GRAPHICS	4	IQ FACTOR	5
AUDIO	3	FUN FACTOR	6

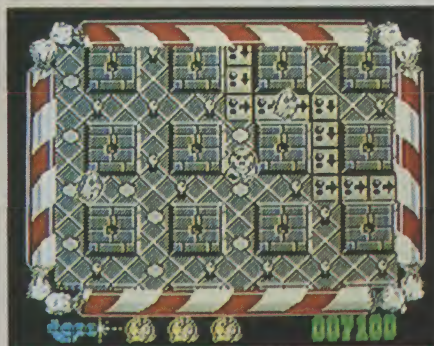
ACE RATING 524

# MAD MIX

US GOLD's soft drink

Pepsi comes in one flavour only - but on the plus side, Max can step on panels on the floor and temporarily mutate himself into other creatures... like a ghost-stomping hippo. Treading on another icon makes Max a Pac Drac - he grows fangs and can suck the aura out of ghosties, sending them Pacing, back to their electro lair.

The rotund hero has a total of five alter egos into which he can mutate in order to deal with the hazards encountered on the mission - ghosts aren't all that are out to stop him on his quest, and as you might expect,



In PacDrac mode, the fanged bubble sees off a ghostie.

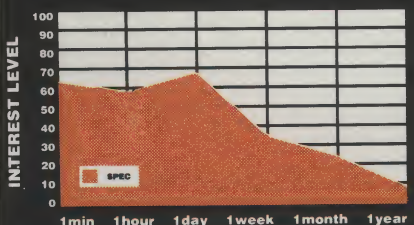
life gets more difficult on later levels. For instance, Max can't move on to another maze until all the bubbles have been cleared from the current suburb of Pepsi Village: on the second level, a bubble-blowing ladybird creature roams around undoing his work, and needs to be stomped.

A few neat touches embellish the basic Pacman gameplay, but the Pepsi Mad Mix game offers little new or exciting, other than bubble-gathering and the chance to win a prize in the joint promotion between US Gold and Pepsi Cola.

Remember: take the bubbles out of Pepsi and it goes flat...

● Graeme Kidd

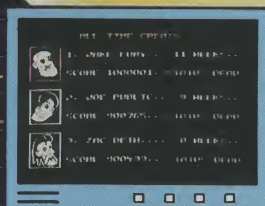
## PREDICTED INTEREST CURVE





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A Novel idea and one that I can see being copied quite a lot...C & VG.



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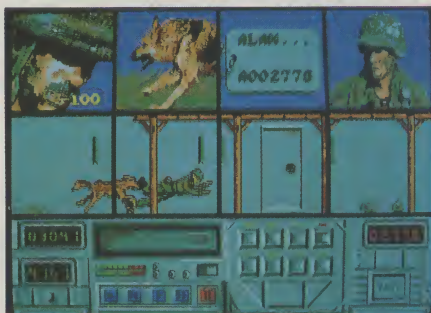
# ACTION SERVICE

## INFOGRAMES play soldiers

**TRAINING** with crack Cobra commandos is certainly not for cowards. Four gruelling assault courses must be endured before you can embark on a top secret mission - which has yet to appear in the guise of *Action Service II*.

The commando under your control is a spritely character capable of all manner of movement; this does mean, though, that control takes a little getting used to.

Your basic physical fitness is checked on the First course where you must negotiate walls, ditches, barbed wire, ladders and other objects - and run like hell. Officers scream orders at you during the tests - "pushups", "go", "get up", "air raid" - and their orders must be obeyed instantly, otherwise



Watch out for Rex. Grabbing onto the monkey bars keeps your trousers intact.

### ATARI ST VERSION

Good fun once you have found out what to do. Animation is good as are the digitised images of your leaders. Sampled gunfire, explosions and screams add atmosphere. Enjoyable to start with, but lack of demanding tasks means *Action Service* palls quickly.

**GRAPHICS 7 IQ FACTOR 3**  
**AUDIO 6 FUN FACTOR 5**  
**ACE RATING 597**

### RELEASE BOX

**ATARI ST** £24.95dk OUT NOW

**AMIGA** £24.95dk OUT NOW

**IBM PC** £19.95dk IMMINENT

8-bit versions under development

# ALBEDO

## Laser-light lampoonery with LORICIELS

**DICK** is creator and master of the planetoid Albedo. Made of metallic corridors and infested by a variety of unpleasant creatures ranging from Novas to Bubble-Eater Worms, Albedo is your home



Do you feel lucky? You'll need to be 'cos that brute eats laser bolts for breakfast. A few power shots will make him think twice about attacking you.

### RELEASE BOX

**AMIGA** £19.99dk OUT NOW

**ATARI ST** £19.99dk OUT NOW

No other versions planned

### ATARI ST VERSION

Wonderful tune. Even the in-game digitised effects are excellent. Control is sometimes sluggish - especially when there's lots on the screen. Menu and sprite graphics look good.

**GRAPHICS 7 IQ FACTOR 5**  
**AUDIO 9 FUN FACTOR 6**  
**ACE RATING 711**

### AMIGA VERSION

Tune is marginally better than the ST's. Smoother animation and control during gameplay, but otherwise much the same as the ST version.

**GRAPHICS 7 IQ FACTOR 5**  
**AUDIO 9 FUN FACTOR 6**  
**ACE RATING 711**

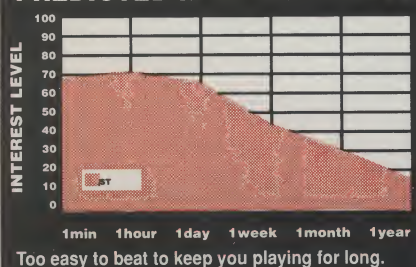
you lose points. Rex the dog also needs to be evaded.

Stage Two is the Risk Route. Grenades and bombs must be picked up and hurled while you avoid mines and rifle fire. Again, Rex must be evaded. After that comes the Combat Test where hand-to-hand skills are called for: duff-up anyone you meet on the way and dodge rubber bullets, exercise grenades and opponents' punches. Stage Four is a combination of the three previous trials.

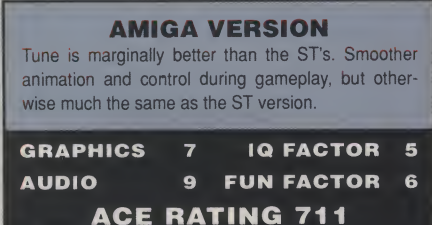
An interesting video replay feature allows you to record and then replay and examine your efforts over a course. You can see where you went wrong, learn from mistakes and do better next time you attempt the stage. An icon-driven construction mode also exists which lets you create your own routes and tests.

Richard Monteiro

### PREDICTED INTEREST CURVE



### PREDICTED INTEREST CURVE



Richard Monteiro



# BOMBUZAL

IMAGEWORKS on a short fuse



Crowther Ritman, Minter - three names you'd never expect to find on the credits for a single game, but they've all contributed to this one. Tony Crowther was responsible for the programming, but both the other two designed their own fiendish levels.

There are 120 levels of explosive mayhem, in which you have to set off all the bombs and mines without ending up as a large red stain on the ceiling. Each level is composed of floor tiles all in one plane, but you can view the game from a 2D overhead perspective or from an isometric 3D viewpoint. There's also a map that can be called up to reveal the whole level.

Each screen has to be completed within a time limit. If this runs out or you fall foul of one of the many traps you lose a life. The timer keeps running when you've got the map on screen, although the action is paused. Fortunately, not everything is stacked against you. When you die there's the option to restart at the screen you were on, and passwords enable you to return to the game another day and avoid ploughing through all the screens you solved in a previous session.

The only way to explode a bomb is to set it off yourself. This might sound a damn silly thing to do, but small bombs only destroy the tile they're on - it won't explode until you've

**Amiga - the 3D view looks great. You're the blue guy with the bug eyes.**

walked off the tile. An exploding bomb can also set off other bombs and mines that are within or adjacent to its blast area.

You can set off larger bombs as well, but only if the adjacent tile you walk onto is a

## RELEASE BOX

AMIGA	£19.99dk	IMMINENT
ATARI ST	£19.99dk	IMMINENT
C64/128	£9.99cs £12.99dk	OUT NOW

No other versions planned

## AMIGA VERSION

Both the 3D and 2D graphics are excellent, but you can see more on the 2D view. The music and effects are good too, making a superb package.

GRAPHICS	8	IQ FACTOR	7
AUDIO	8	FUN FACTOR	7
ACE RATING 919			

## C64 VERSION

It's much harder to tell what's what on the 2D view but it looks good in 3D as well. The levels differ in places from the Amiga version and generally it's a bit easier, but just as addictive.

GRAPHICS	6	IQ FACTOR	7
AUDIO	7	FUN FACTOR	7
ACE RATING 919			

teleport that whisks you away from the blast. Mines are more of a problem because you can't cross their tiles as you can with bombs. They have to be detonated by a bomb near them or by some other remote device.

Two other types of bomb make life even more complicated. Swell bombs aren't so swell because they, well, swell. They change in size so that depending on when they're set off they can produce a small, medium or large explosion. Then there are the handy A-bombs which detonate all the other bombs on a level when they are exploded.

The floor tiles have different characteristics, too. Normal ones are destroyed by explosions but Riveted tiles are blast-proof. Slippery Ice tiles are impossible to stay on, while Dissolvers disappear when you step off them. Finally there are slotted tiles, which you can use to move bombs around.

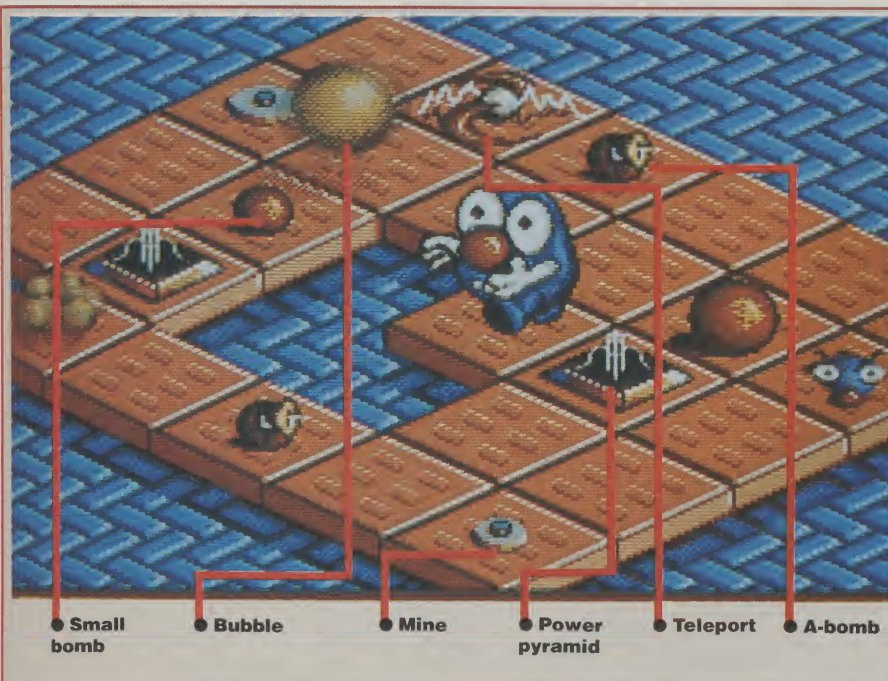
Tiles can also have other features on them that affect either you or the bombs. Power pyramids suck in an explosion on an adjoining square, no matter how big the bomb. Spinners throw you off in a random direction, while Switches are a crucial part of many levels because activating them changes the map.

Unfortunately you're not the only thing that can move around the place. Two characters called Dexter and Sinister trundle along turning, right and left respectively, whenever they can, killing you on contact. Two droids - Bubble and Sqweek - can be remotely controlled to set off bombs and mines while you sit still, immune to disasters.

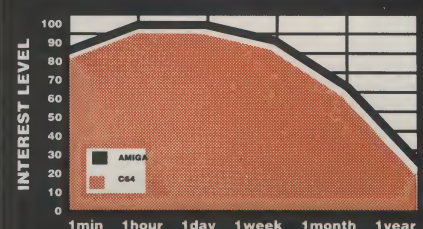
The puzzles are brilliant and the levels numerous and tough enough to keep you glued to the screen. You'll manage all the levels eventually, but you'll really get your money's worth in the process.

● Bob Wade

**Amiga - this maze of bombs, slots, teleports and ice could take ages to work out.**



## PREDICTED INTEREST CURVE



Immensely addictive puzzling, and the 120 levels will last a long while.



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**NUCLEAR** fusion is the combination of two nuclei to form one nucleus with the consequent release of large amounts of energy. Software Fusion is the combination of two game styles to form EA's first UK programmed game.

The styles in question are a shoot-em-up and a maze puzzle. The two types of game are also played using two different craft. There's a mothership which flies over the landscape, and a crawler which can be carried by the mothership or trundle along the ground. Obviously the crawler is more restricted in movement by the ground objects, but there are tasks which only it can complete.

There are 13 game areas which have to be searched for parts of a bomb which then

# FUSION

ELECTRONIC ARTS  
go fission...

has to be detonated back in the start area. You'll encounter five types of enemy - four released by ground emplacements and the fifth a static gun. The projectiles released all home in on you, but not all of them can fly over ground obstacles. They can be destroyed by shooting them, as can the generators if they're shot while producing an alien.

The crawler is much less manoeuvrable and more vulnerable than the mothership, so it's best to strafe the landscape in the mothership before venturing out in the crawler. The mothership can pick up enhanced weapons and shielding but these aren't transferred to the crawler.

The crawler has to operate the switches that allow you access to other parts of the game. Combinations of switches are needed to remove bits of scenery or to open gates to other areas. The main problem is that the gameplay is too slow when accessing the switches. There's too much wandering around with nothing to do. If you can put up with that it's tough to complete, but it's never going to get you very excited.

● Bob Wade



The skull at the bottom right of the screen will replenish energy. To get at the yellow switch you'll need to get a green circle first and use the crawler.

## AMIGA VERSION

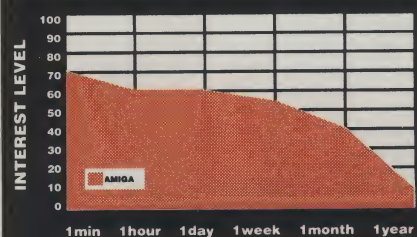
The graphics are good but the actual display size is small, not using the full height of the screen. The music and effects are also of high quality, but fail to make an impression on the mediocre gameplay.

GRAPHICS	7	IQ FACTOR	5
AUDIO	6	FUN FACTOR	4
ACE RATING 607			

## RELEASE BOX

AMIGA	£24.95dk	REVIEWED
ATARI ST	£24.95dk	IMMINENT

## PREDICTED INTEREST CURVE



Never reaches adrenalin-pumping heights, but isn't easy to complete.

# TRACK SUIT MANAGER

GOLIATH over the moon

**FOOTBALL** games have always been big sellers and hardly a month goes by without someone claiming to have released the 'ultimate' simulation. This one dispenses with the money and administration side of things and lets you get on with team management.

You're in control of a European national team - it doesn't have to be one of the home countries - and are trying to qualify for, and win, the Nations and World Cups. Everything is run via the calendar - group matches,

friendlies, tours and the finals.

Your control over the team is extensive - you can choose from a squad of 100 players, each with individual reports on them and face opponents who can be inspected to

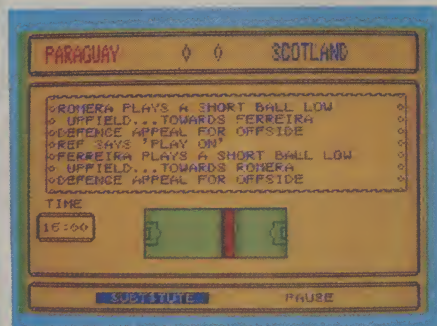
## RELEASE BOX

SPEC	£9.95cs	REVIEWED
AMIGA	£19.95dk	IMMINENT
ATARI ST	£19.95dk	IMMINENT
AMS	£9.95cs	IMMINENT
C64/128	£9.95cs	IMMINENT
IBM PC	£24.95dk	IMMINENT

## SPECTRUM VERSION

There aren't any graphics or sound to speak of, presumably you're supposed to add your own 'ere we go' chants, baton charges and head wounds.

GRAPHICS	1	IQ FACTOR	8
AUDIO	N/A	FUN FACTOR	1
ACE RATING 588			



Scotland and Paraguay are deadlocked at 0-0, but there's plenty of time left in the game.

similar depth.

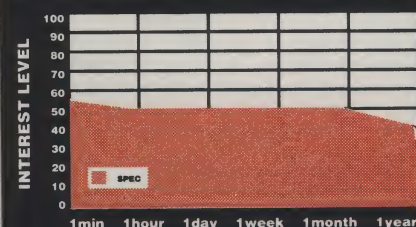
There's no graphic action for the games, but you can have kick-by-kick reports of games if you want them. These are very detailed but do take a long time. You can speed these up, or for matches not involving your team get just a quick statistical breakdown of the games.

Other teams and players can be scouted to assess their strengths and weaknesses. There's tremendous variety in the tactics that the team and individual players can use.

It's not a football game to be played lightly because you have to analyse a lot of information to get the best team and results. This means it takes a lot of work before you get rewarding results. It also means that football freaks will be able to get totally immersed in it.

● Bob Wade

## PREDICTED INTEREST CURVE



Lacks sparkle but football fans are guaranteed many months of challenge.



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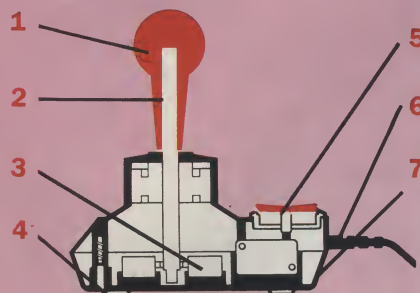
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RED STORM RISING by Tom Clancy © 1986 by Jack Ryan Enterprises Ltd and Larry Bond.



# ELEMENTAL

LANKHOR'S great ordeal.

**DIFFICULTY** tuning is a fine art, folks. It's also a vital one: get it wrong and you've got a surefire turkey on your hands. No amount of technical skill, imagination, artistry or wit can save a game that's way too easy or way too hard. Ludicrously easy games are all too common these days, but Lankhor have come up with a bit of a rarity here: a game that's absurdly difficult.

The scene is the planet Elemental, where you're about to go through The Great Ordeal. In essence this is a test that qualifies you as an adult, in the unlikely event that you actually survive. Roots fans will be delighted to know that the Ordeal involves nothing nastier than trundling around a series of overhead-view screens collecting things, turning them into other things and putting them down again.

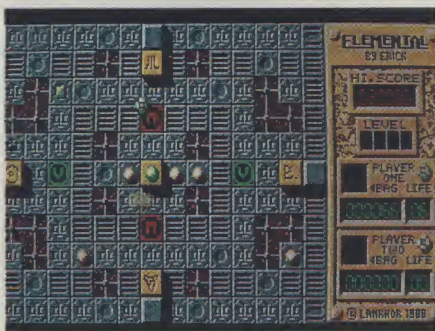
That's quite nasty enough, mind you.

## RELEASE BOX

ATARI ST	£19.95dk	REVIEWED
No other versions planned.		

The Roundline you control (actually a little ball) is continually pursued by spherical and rather more exotic-shaped nasties. By clever manoeuvring you can lure the spherical nasties into indentations, but their exotic cousins just keep after you. To stop them you'll need to pick up yellow blocks from one of the screen's 'M' squares.

Drop a yellow block in an exotic nasty's path and the nasty turns into a red capsule. Pick up the red capsule, take it to a 'V' square and it turns into a green capsule. Take this to a capsule holder, slot it into place



That's your ball up by the orange 'M' tile, but it has only seconds to live!

## ATARI ST VERSION

Graphics are subtly attractive and the sampled sound effects are great, but as a game it comes a poor second to beating your head against the wall.

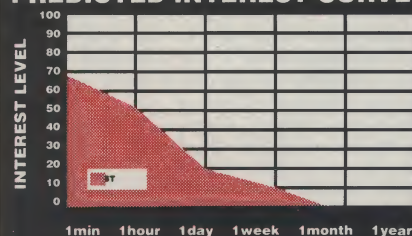
GRAPHICS	8	IQ FACTOR	1
AUDIO	8	FUN FACTOR	1
ACE RATING 273			

and you're halfway to completing the screen. Got all that?

If this doesn't exactly sound earth-shattering, it might at least be nice to try it out. Unfortunately you won't be able to. The nasties home so fast and so purposefully that you can't do a thing. It's often impossible to get from your start point to an 'M' square without dying, so taking things any further is a matter of luck rather than skill. What is the point?

● Andy Wilton

## PREDICTED INTEREST CURVE



Unplayability will out.

# SPACE RACER

LORICIELS future biking

**HOVER** bikes are the wild racing machines of the future. Astride one of these throbbing machines you can travel at high speeds across the undulating, hazard strewn landscape.

This death race of the future takes place on three courses. On each one your task is simple - follow the dotted line as closely as possible and avoid the roadside hazards and other bikes. The crucial thing about the dotted line is that the closer to it you stay, the more economical



Whizzing through the pylons, trying to avoid other racers

the use of energy.

Staying near the centre line is tough because not only does the road weave left and right, but it also dips up and down. Getting too high above the ground will slow you down, running into it even more so.

All along the route, on both sides, are pylons,

advertising hoardings, signposts and other hazards. Driving into them can have a number of effects - instant explosion, stop you dead or spin you out of control for a while. Crashes deplete your energy, which effectively acts as a time limit.

## AMIGA VERSION

The graphics are very fast, smooth and slick. The backgrounds and obstacles look good too. The crashes are excellent and have plenty of variety. Sound too is pleasant from the opening title tune, through to the digitised speech and driving noises.

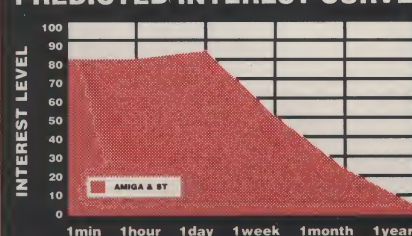
GRAPHICS	8	IQ FACTOR	1
AUDIO	7	FUN FACTOR	7
ACE RATING 702			

The other bikes will try to stay on the centre line as well. You can bump them or shoot them when they get in the way, but they can still slow you down considerably.

You can tackle the three courses individually or together as a championship. It's addictive driving stuff which won't be beaten easily. What it lacks is variety in the opposition. A few more levels and types of obstacle would have been nice.

● Bob Wade

## PREDICTED INTEREST CURVE



Bags of appeal but not enough courses or variety.

## RELEASE BOX

ATARI ST	£19.99dk	REVIEWED
AMIGA	£19.99dk	REVIEWED
SPECT	£8.99cs £12.99dk	IMMINENT
AMS	£9.99cs £14.99dk	IMMINENT
C64/128	£9.99cs £14.99dk	IMMINENT
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## ATARI ST VERSION

Virtually the same as the Amiga. The road is, if anything, easier to follow but there's little to choose between them.

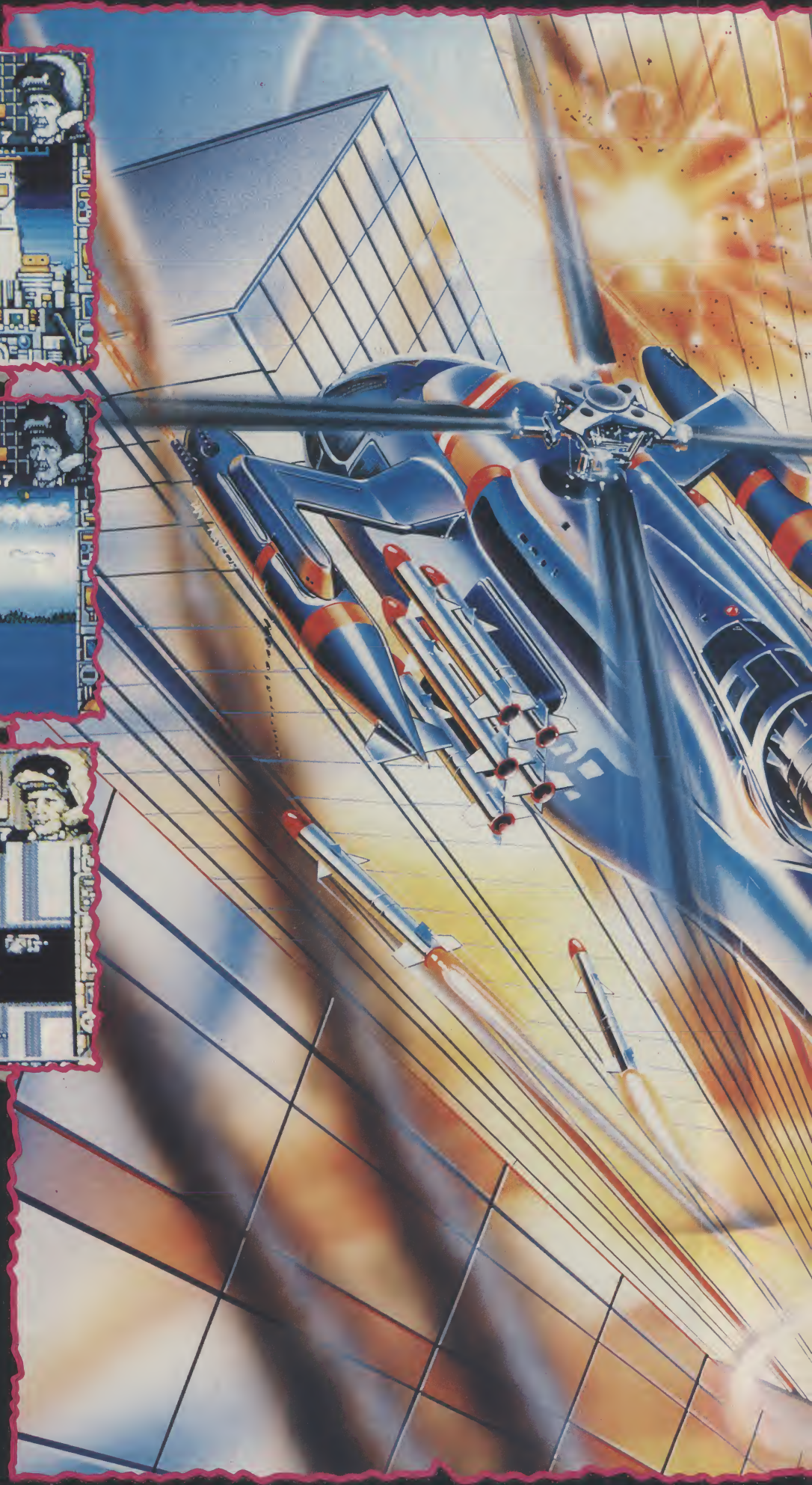
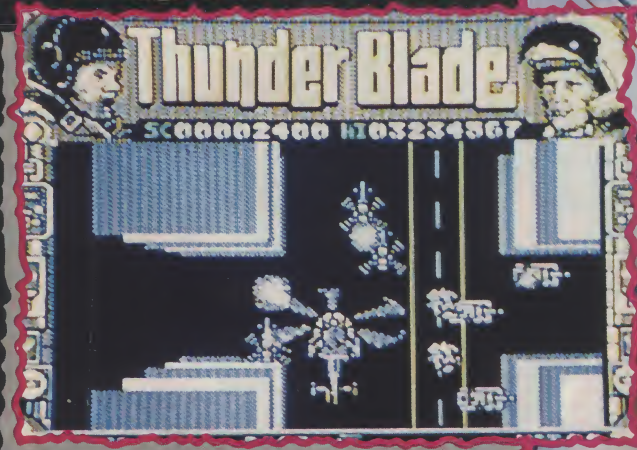
GRAPHICS	8	IQ FACTOR	1
AUDIO	7	FUN FACTOR	7
ACE RATING 702			



**The meanest fighting machi**



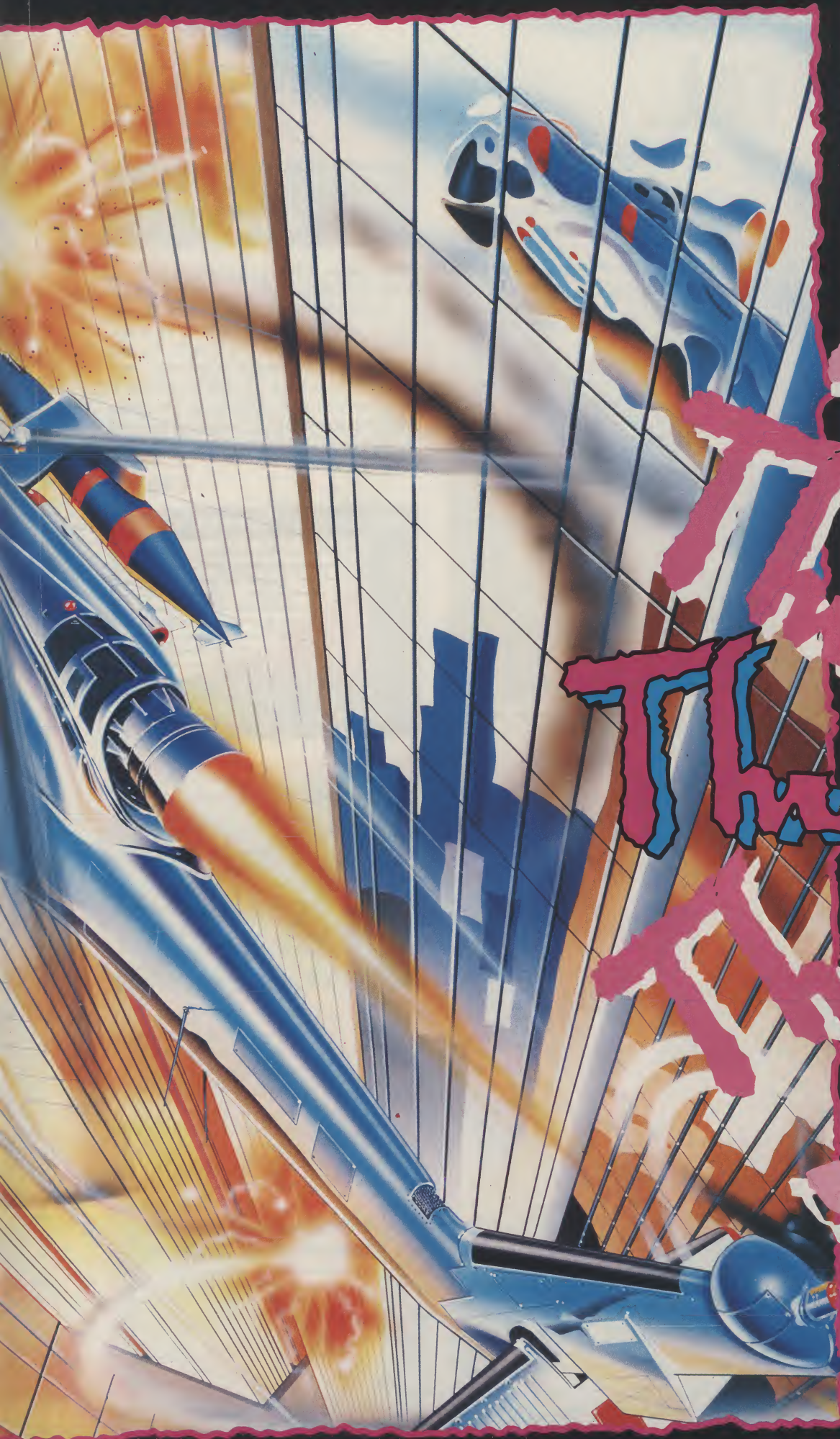




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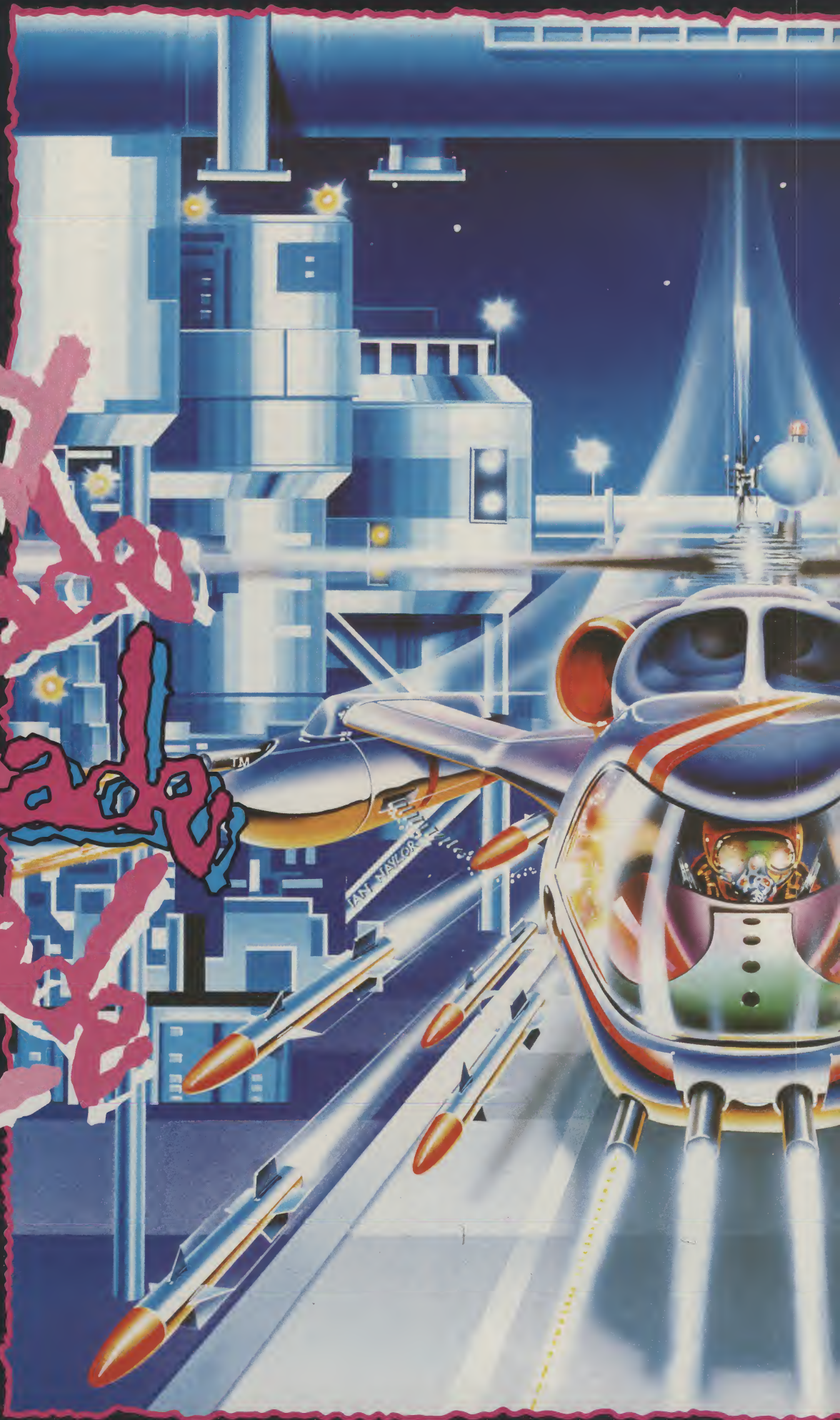


# No.1

# er Blade

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ATARI ST £19.99 DISK AMIGA £24.99 DISK IBM PC





Screen shots taken from various formats



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# GAME OVER II

Daring-do from DINAMIC

**IT** is not over yet. There are still baddies for the intrepid hero encountered in Game Over to deal with, and so he sets off on another mission, this time to free the imprisoned hero of the rebellion.

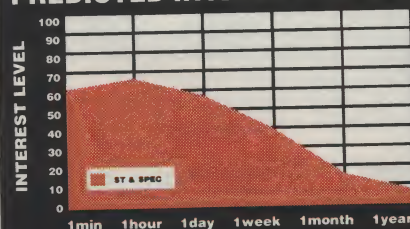
A spot of horizontal Galaxians warms you up, then it's time to Scramble over a volcanic landscape before descending into a cave system and doing battle with squirly serpents, enemy fighters and bolts of pure energy. Survive that, and it's time to mount a strange steed and gallop across swampland

on the quest for the access code that allows you to sample the second load. A strange space-hopper sequence leads into a spot of arcade adventuring underground before you gain the controls of a helicopter, fly over another volcanic zone to duff up the guards in the prison that holds Arkos, the man you're trying to save.

Lots of different things to do, but nothing spectacular – a pick 'n' mix of gamestyles in a short and sweet selection.

● Graeme Kidd

## PREDICTED INTEREST CURVE



The urge to complete subsequent levels keeps you going for a while.

## RELEASE BOX

ATARI ST	£19.95dk	OUT NOW
AMIGA	No firm plans for this version	
IBM PC	£19.95dk	IMMINENT
C64/128	£8.95cs £12.95dk	IMMINENT
SPECTRUM	£8.95cs £12.95dk	OUT NOW
AMSTRAD	£8.95cs £12.95dk	IMMINENT



Major Locke is in his ship and blasting away at the incoming waves of aliens.

## SPECTRUM VERSION

A good deal, in that you get Game Over I included in the package. Effectively a compilation of linked budget-standard games that is fun but not enthralling.

GRAPHICS	5	IQ FACTOR	4
AUDIO	4	FUN FACTOR	5
ACE RATING 513			

## ATARI ST VERSION

Relatively pretty graphics and creditable effects can't make up for the run-of-the-mill gamplay. Offers nothing new or amazing, but reasonably entertaining.

GRAPHICS	6	IQ FACTOR	2
AUDIO	5	FUN FACTOR	4
ACE RATING 513			

# SUPERSPORTS

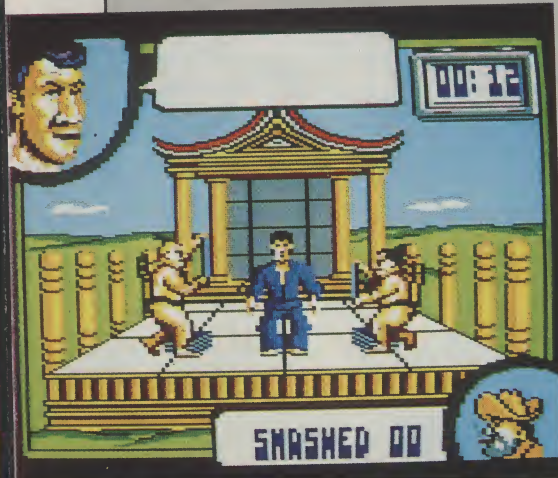
GREMLIN get on the Seoul Train

**IN** the wake of the Seoul Olympics comes Gremlin's collection of alternative sports, compered by 'Gilbert'.

Five events feature, starting with Crack-shot, in which you have 90 seconds to shoot targets that pop up in an alleyway. Mind you don't shoot the alley cats or your score suffers. High Diving follows, where you jump

off a board from anything between 40 and 400 feet up in the air, aiming to perform acrobatic stunts before landing in a paddling pool. Then it's on to the Slate Smash, where two Sumo wrestlers holding slates stand either side of your character – smash as many slates as possible in 60 seconds. The penultimate event is a Crossbow contest where joystick-wagging gains tension on the bow, before you line up the sights and fire a

Slate smashing on the Amstrad.



## SPECTRUM VERSION

Great graphics and good gameplay can't mask the lack of challenge.

GRAPHICS	8	IQ FACTOR	1
AUDIO	6	FUN FACTOR	7
ACE RATING 535			

## RELEASE BOX

C64/128	£9.99cs £14.99dk	IMMINENT
SPECTRUM	£7.99cs £12.99dk	OUT NOW
AMSTRAD	£9.99cs £14.99dk	OUT NOW
No plans for 16-bit versions		

## AMSTRAD VERSION

The graphics are colourful and well-animated. The gameplay is good and you're left with the overall impression that if Gremlin had managed to include more events or made the existing ones tougher, they would have had a much stronger product.

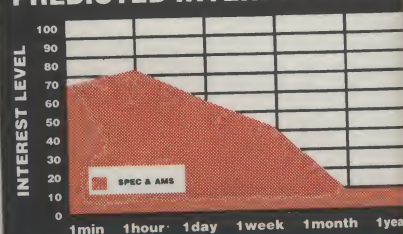
GRAPHICS	8	IQ FACTOR	1
AUDIO	6	FUN FACTOR	7
ACE RATING 535			

total of six bolts at three targets placed at different ranges. The final event is the Underwater Assault Course where old tyres, mine and stinging jellyfish have to be negotiated.

Supersports has been well put together and is great fun to play, but the multiloading is annoying and the events are not tough to master. The facility to play with four people increases its lasting interest slightly, but even then there just isn't enough in the game to keep you playing for very long.

● Andy Smith

## PREDICTED INTEREST CURVE



What's there is great – there's just not enough of it...



# SDI

## ACTIVISION's peace shield

**BONZO** Reagan may be on his way out of the White House but his 'peace shield' - the Strategic Defence Initiative - continues to be developed. As a hope for mankind's survival it has still to be realised or proven, but it sure provides good inspiration for game authors.

Multi-megatons of nuclear death-dealers are roaring their way through the ionosphere on their way to turning Earth into a radioactive wasteland. Just like bunging a meatball in the microwave. You are a satellite whizzing peacefully around in orbit when suddenly all this hi-tech explosive hardware pops into view. Naturally you're going to get your laser tips warmed up and stop everything getting past.

You control the movement of both the satellite and its laser sight, using the mouse or a mouse in combination with a joystick. Mouse-only control moves the sight, or the satellite when the left button is held down. Alternatively, a joystick can be used to move the satellite, which can allow simultaneous two-player games, one person on the mouse controlling the laser and the other moving the satellite via joystick.

The screen scrolls slowly from right to left, bringing on background scenery and of course the nukes. The weaponry starts off simple enough: rockets cruise slowly across the screen and ground bases appear on the planet background. The rockets won't even harm you if they hit the satellite. It's impor-

**You're satellite has enhanced weapon power via that big blue circle.**



The blue weapons circle you, closing in and then shooting for the kill.



The defensive screen where you have to stop the missiles hitting your base.

### RELEASE BOX

ATARI ST	£19.99dk	OUT NOW
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tant you try to wipe everything out, because if any offensive weapons get past you enter a defensive stage at the end of the level.

The weapons soon start to get nastier and come in greater numbers. There are fast moving ones that try to crash into you, others that shoot at you, and a particularly nasty group that spiral into the middle of the screen, coralling you into a spot where they can get an easy kill.

The defensive screen doesn't scroll, but shows the base which has to be defended from the incoming missiles. These fly in from the horizon and from the sides. Again you use the satellite to shoot down the missiles before they hit home. If the base survives the attack, it's on to the next offensive section.

There are 12 levels and while the early ones are easy, the action starts to get tough at Level Four. Progress is aided considerably by picking up pods that give a larger firing spread, faster movement and extra sights. These additional sights can be quite confusing because they move in a delay pattern behind the main sight and it's easy to lose track of which one you are moving directly.

Addictive, tough and packed full of features, SDI belies its coin-op origins by being very well paced to boot. One of the best coin-op conversions this year.

● Bob Wade

### ARCADE ACCURACY



An excellent conversion for graphics, gameplay and even the control method. If you liked it in the arcade you'll love it on the ST.

### COIN OP SCORE 6

### SPECTRUM PREVIEW

The action looks just as hectic as the ST and you'll need two joysticks to get the best out of it. The backgrounds aren't there because of the need for speed, but it still looks like it's going to be good.

### ATARI ST VERSION

Excellent scrolling, colour, sprite design and explosions. There's a different piece of music on every level and the tunes sound good too. The dual control works well, but it's definitely recommended you have either two players or a joystick that can be suckered, clamped or otherwise strapped down.

GRAPHICS	8	IQ FACTOR	2
AUDIO	9	FUN FACTOR	9
ACE RATING 844			

### PREDICTED INTEREST CURVE



It's easy to get into, packed with features and sets some tough tests.



# DALEY THOMPSON'S OLYMPIC CHALLENGE

## OCEAN going for gold

**DALEY** Thompson is not a stranger to olympic success – or to endorse-

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### C64 VERSION

Much easier shoe selection here and the training sessions aren't as sadistic as the Amiga version either. The graphics and sound are up to scratch.

GRAPHICS	7	IQ FACTOR	2
AUDIO	6	FUN FACTOR	7
ACE RATING 644			

ing games. This is his third joystick-wagging game endorsement.

The ten decathlon events are the 100 metres, long jump, shot putt, high jump, 400 metres, 110 metres hurdles, discus, pole vault, javelin and 1500 metres. They are all included, along with some training sequences which help competitors prepare for the events.

The events are the usual combination of joystick-wagging and button-press timing,

### AMIGA VERSION

Unsurprisingly, it's got the best graphics both for presentation and the action itself. Music and effects are competent as well. Choosing shoes is a bit confusing because you aren't told whether you have made the correct choice.

GRAPHICS	8	IQ FACTOR	2
AUDIO	6	FUN FACTOR	7
ACE RATING 680			



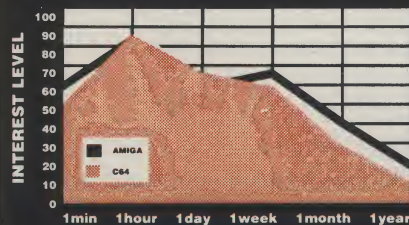
Daley prepares to launch himself into the long jump pit

but there are a couple of additional factors thrown in. One is the choice of footwear for each event – a range of shoes is available, and picking the wrong one for an event can seriously impair performance. The other addition are the training scenes, in which bottles of Lucozade can be won after prolonged bouts of hard wagging which can leave you absolutely knackered.

Wagging games aren't exactly new, but this one is nicely put together. It's certainly better than the original DT's Decathlon and should appeal to most sports freaks.

● Bob Wade

### PREDICTED INTEREST CURVE



Wagging is fun, but it's not the most challenging gameplay there has ever been.

# POW

## Hungry like the ACTIONWARE

**BOTH** Sega and Nintendo have light guns that attach to their systems, and software that allows you to use the gun to shoot various on-screen baddies from across your living room. Now, thanks to American software house Actionware, Amiga owners can do the same.

Whether you use the light gun or simply stick to playing the game with the aid of a mouse, the objective's the same. You have to work your way through several stages killing off enemy soldiers before finally rescuing six

of your buddies and seeing they make it safely to a pick-up point.

You're armed with a machine gun with nine ammo clips and six rockets initially, and if you use the mouse a small sight appears on screen and you use this to line up your shots on the enemy. Care must be taken during several sections as innocent monkeys and dogs often wander across the screen. Shooting an animal is not disastrous, but it does reduce your score drastically. Shooting the enemy however, is a jolly good idea, especially as many of them drop ammo clips and extra rockets which you shoot to collect. Shooting tanks and helicopters that appear later in the game is no problem providing you've got some rockets – move the



In the jungle on level one. Watch out for those poor innocent animals.

### RELEASE BOX

ATARI ST	£29.95dk	IMMINENT
AMIGA	£29.95dk	OUT NOW
No 8-bit versions planned		
Optional light gun – £39.95 now or £29.95 soon		

### AMIGA VERSION

The graphics, scrolling and sound are great. Although it's fun to play, you'll probably burn it out within a couple of weeks and will only load it up in the future for a quick bit of mayhem.

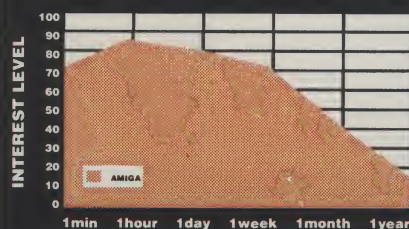
GRAPHICS	8	IQ FACTOR	1
AUDIO	8	FUN FACTOR	8
ACE RATING 753			

sight over a vehicle, press fire and a rocket launches automatically.

Kill the enemy off quickly, because it doesn't take long for them to start shooting at you, and doing damage to your health meter. First aid boxes appear now and again and boost health a little if they're shot on the ground. P.O.W. is not going to strain your brain, but it's a satisfying blast while it lasts.

● Andy Smith

### PREDICTED INTEREST CURVE



It's playable stuff, but not challenging enough.

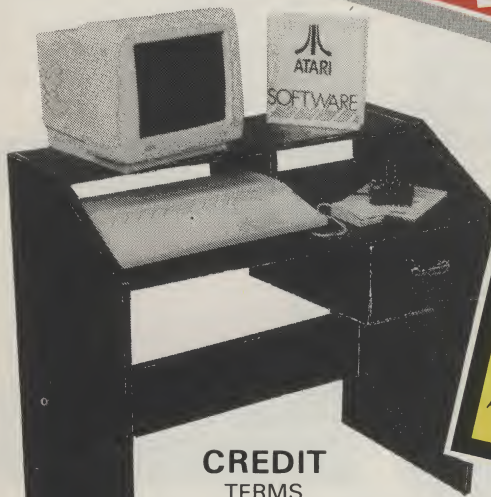


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# FERNANDEZ MUST DIE

UPDATE SPECIAL

ST • Imageworks £24.99dk

**GENERAL** Fernandez and his military Junta are at it again and you've got the glorious task of giving them a one-way ticket to oblivion. It's the same basic idea as the C64 version reviewed in Issue 13, but there have been quite a few changes – by no means all for the better.

The 64 version made quite strenuous attempts to distance itself from games like Commando and Ikari Warriors by having

side rooms and other features. On the ST it has reverted to being a more standard clone. It's purely vertical scrolling and loses other features from the 64 like planes, parachutists, and gold to collect.

Graphically the ST version is infinitely superior to the 64. It has also gained a cutting edge to the gameplay. It really is extremely tough to survive the constant attentions of the enemy soldiers and gun turrets, but it lacks variety in the task. There are still armouries to raid, safes to blow up and prisoners to rescue but these are just point-scorers that help top up your number of lives.

The actual aim of the game has also been modified slightly. Instead of destroying bases you have to kill the seven members of the Junta. They are found in buildings with red crosses on, as is Fernandez at the end of the game.

This version is a little disappointing because I'd expect the ST to have more features. However, it's still got plenty going for it.

● Bob Wade

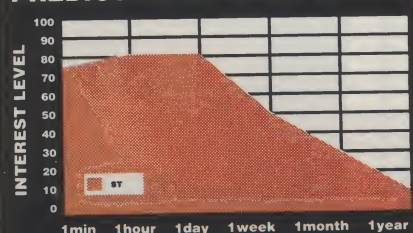


## ATARI ST VERSION

Sharp, clear graphics but not as good as Leathernecks. The explosions and sound effects also lose in comparison.

**GRAPHICS** 7 **IQ FACTOR** 2  
**AUDIO** 3 **FUN FACTOR** 7  
**ACE RATING** 674

## PREDICTED INTEREST CURVE



Lack of variety means it palls faster than the 64 version

# DRILLER

Amiga and ST • Incentive £24.99dk

**FREESCAPE** Incentive's tremendously impressive solid 3D system, finally makes it onto the 68000 machines with this epic of drilling and puzzle-solving. The scene is the prison moon Mitral, where underground gas build-ups are reaching dangerous proportions. Your

**ST – an aerial view of the start location. The control panel has been jazzed up considerably and the graphics move fast.**

task is to place drilling rigs and thereby relieve the pressure, before Mitral is blown to pieces.

The game may not demand much in the way of geological knowledge, but you will need to think hard and shoot accurately. You'll also need to have a sense of wonder, because the solid 3D used to depict the game's many puzzles and hazards is very impressive stuff.

On the 8-bit machines this visual impact was tempered by the slow frame rate of the display, but there's no hint of that in these latest versions. Considering just how much work goes into each screen, the display is very fast indeed. As with the PC version, the extra speed makes the game a far more appealing prospect for arcade fans, even though the original puzzles are unchanged.

A bold, admirable piece of software when it was launched almost a year ago, Driller has lost nothing in the meantime. The ST and Amiga may both have a good few solid 3D titles, but the 'real world' feel of Freescape puts this one in a class of its own.

● Andy Wilton

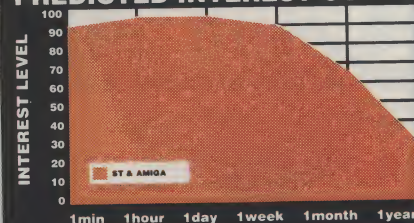


## AMIGA & ATARI ST VERSION

The mouse-icon control system is new to these versions, but it's natural and works well. The larger colour range makes for the best-looking Mitral yet, and it's so fast too!

**GRAPHICS** 9 **IQ FACTOR** 7  
**AUDIO** 4 **FUN FACTOR** 3  
**ACE RATING** 963

## PREDICTED INTEREST CURVE



Great to look at, great to play, but you'll solve it eventually.



# NEBULUS

ATARI ST & AMIGA • Hewson £19.99dk

## UPDATE SPECIAL

VERY few games have stood out in the past year as exceptionally original, but this was certainly one of the few. It mixes platform action with amazing tower turning graphics, to produce one of the most addictive and challenging games ever. Nearly a year on the 16-bit versions arrive, not just with the enhanced graphics and sound you would expect, but with extra levels as well.

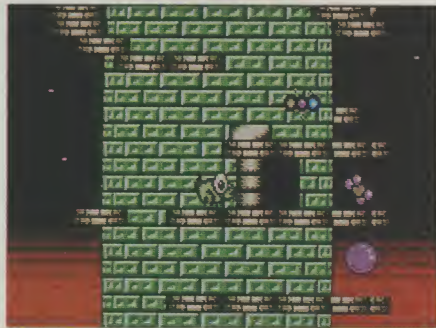
You control a cute little thing called Pogo who is always centred on the screen. He appears from a submarine at the bottom of a cylindrical tower, which you view from the side, and have to climb to the top of. The most original thing about it is the viewpoint you have on the action – as you walk round the tower it revolves, revealing what was hidden from view. It's a very simple idea, but it brings a nerve tingling edge of the unknown to the gameplay and creates a unique display.

Having marvelled at this innovative graphic style you'll soon get caught up in some astounding gameplay. When boiled down to its essential elements it's a platform game composed of nasty timing problems and complex puzzles, often requiring lateral thinking. What makes it different from the run of the mill, 2D platform offerings is the wraparound tower idea and the sheer inventiveness that author John Phillips has put into the puzzles.

Climbing up the towers is mostly a matter of following a route of platforms and lifts. Along the way there are plenty of horrid hazards to await the unwary. The cheapest trick of all is the disappearing block, that vanishes as soon as you tread on it plunging you down the tower. However, this is where another of the games' brilliant touches comes in. Falling doesn't kill you as long as you fall onto a plat-

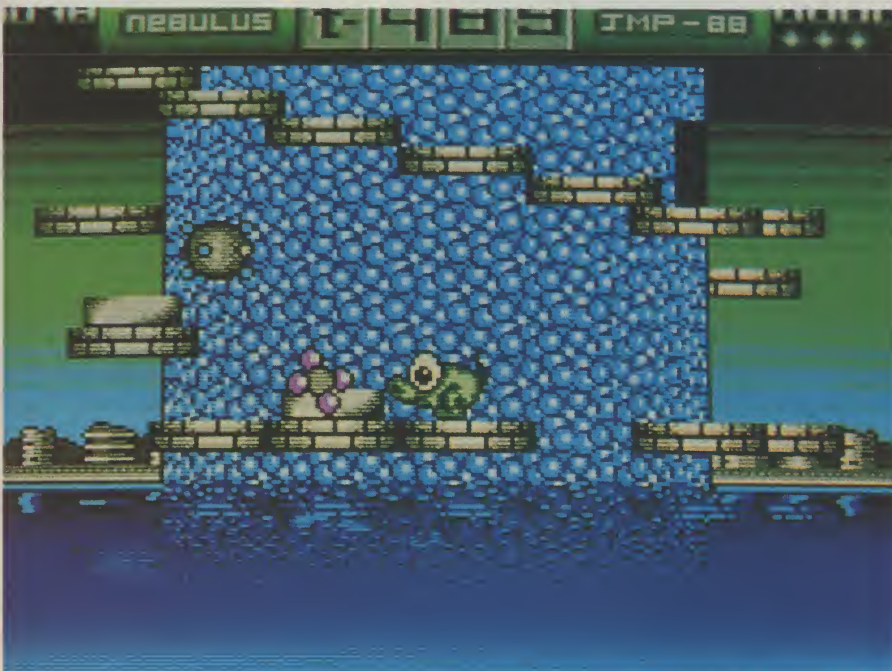


**Amiga** – that pink ball is headed for Pogo. You must shoot it with a snowball or you'll be tumbling back down the tower.



**ST** – a nasty trick this one. To complete the tower you have to let the spinning alien to the right of Pogo knock him down to the platform below. There another pink ball awaits him, so you've got to shoot fast too.

**Amiga** – one of the nice touches on the ST and Amiga is the water at the base of the towers. It ripples delightfully and reflects the movement above it. However, in this shot you're about to be plunged into it by the spinning alien – and you can't swim.



form further down the tower – it just serves as a setback.

What does kill you is plummeting to a watery grave at the base of the tower or failing to reach the top before the time limit runs out. This means you get plenty of chances to learn the towers, even when you're making lots of mistakes at the beginning.

You'll also learn to hate the spinning alien who periodically appears from the edge of the screen heading straight for you. The only way to avoid it is to go up or down before it arrives, or go through a doorway just before it reaches you. Doorways take you straight across to the other side of the tower, but you can't tell what surprises lie in wait for you.

You can shoot snowballs, but these will only take out flashing blocks that bar the way and pink bouncing balls. The other dangers come in various guises and all follow similar movement patterns. They either shuttle vertically or horizontally, bouncing back and forth off whatever gets in their way. This means there are a lot of timing problems to be overcome, usually in tandem with some other hazard.

In between towers is a bonus stage where you control the submarine and shoot fish which then have to be collected to give extra time on the next tower. You're also treated to a whole new series of towers which make the games lasting appeal even greater.

This game can't be praised highly enough for its originality, graphic presentation, addictive gameplay and lasting challenge. Every last detail has been well thought out in the programming to make a classic game even better.

● Bob Wade

### ATARI ST VERSION

Graphics are just as good as the Amiga, but the sound effects aren't quite as hot. The levels are all identical to the Amiga.

GRAPHICS	9	IQ FACTOR	8
AUDIO	6	FUN FACTOR	8
ACE RATING 952			

### AMIGA VERSION

The graphics and sound effects are the best of any of the versions, just pipping the ST. The new levels are superbly designed and will give even experienced Nebuloiders a good run for their money.

GRAPHICS	9	IQ FACTOR	8
AUDIO	7	FUN FACTOR	8
ACE RATING 952			

### PREDICTED INTEREST CURVE



The graphics and addictive gameplay make it an instant hit. The extra towers keep it going strong.





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The events are sprint cycling, hurdles, pole vault, hammer, parallel bars, rings, archery and diving. None of them are out-and-out waggles, but the cycling, hurdles and pole vault all involve a fair bit of joystick

agitation. The three most technically complicated events, and therefore the ones with most lasting challenge, are the parallel bars, rings and diving, which involve a series of joystick moves that require skill and practice to do well.

The presentation is excellent with opening ceremony, medal ceremony and a comprehensive instruction booklet that details



Whoops! You've taken a tumble trying to do the hurdles. You're not getting up from that one...

## RELEASE BOX

ATARI ST	£19.99dk	MAR '89
AMIGA	£19.99dk	MAR '89
SPECTRUM	£8.99cs £12.99dk	FEB '89
AMSTRAD	£9.99cs £14.99dk	FEB '89
C64/128	£9.99cs £14.99dk	OUT NOW
IBM PC	£24.99dk	IMMINENT

## C64 VERSION

Graphics and animation are up to the usual high standard that Epyx maintain on the 64. The musical pieces that pop up in between the action are also good.

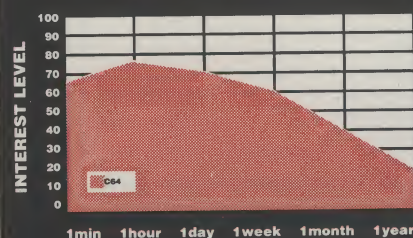
GRAPHICS	6	IQ FACTOR	4
AUDIO	7	FUN FACTOR	7
ACE RATING 753			

some memorable moments from each event and offers hints and tips on tactics.

As you would expect from Epyx, each section is both well put together and challenging. It's best played by a group of people - where the competitive instinct will be strongest. A worthwhile addition to the Epyx sporting range.

● Bob Wade

## PREDICTED INTEREST CURVE



Classy sporting action that will last.

# CYBERNOID II

Pirate pranging with HEWSON

**THOSE** pirates are back again and stealing Federation cargo, so naturally you've been delegated to slap a few wrists, pop a few heads and get it all back again.

The mission is not dissimilar from the original game, although additional features have been added to try to jazz it up. It's a flick screen cross between a shoot-em-up and an arcade adventure, with the emphasis firmly on the blasting. Each screen pre-

sents a bunch of nasty aliens who have to be turned into ex-aliens or just avoided.

The bad guys come in all sorts of shapes, sizes and behaviour patterns. On most screens they come in great numbers and you'll need all your skill and weapons to survive.

The weapons have been beefed up, which is just as well with all those vicious aliens around. You're now armed with bombs, time bombs, shield, bouncing bombs, seeker, smart bombs and tracer. These can kill virtually all known aliens, dead, but are in short supply at the start. Extra killpower can be picked up along the way as ammunition, or extra weapons in the form of a backward firing gun and a large sphere that circles the ship.

Despite the impressive firepower it's still an extremely difficult game to play. The

## AMSTRAD VERSION

The best looking of the three, with the same testing gameplay.

GRAPHICS	9	IQ FACTOR	2
AUDIO	6	FUN FACTOR	7
ACE RATING 672			

## RELEASE BOX

SPEC	£7.99cs £12.99dk	OUT NOW
AMS	£9.99cs £12.99dk	OUT NOW
C64/128	£9.99cs £14.99dk	OUT NOW

16-bit versions under development

## SPECTRUM VERSION

Graphics and sound up to the standard of the first game - they're very slick. Gameplay is just as addictive and frustrating.

GRAPHICS	8	IQ FACTOR	2
AUDIO	6	FUN FACTOR	7
ACE RATING 672			

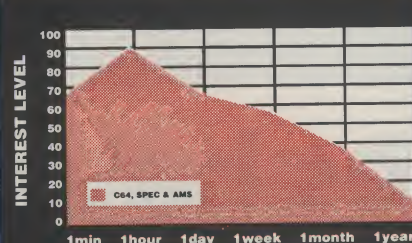


Entering at the bottom left you are confronted by a screenful of alien killers

odds are stacked against you and after dying once, losing weapons in the process, it's even harder to survive. This sort of manic gameplay appeals to many game freaks but there's not much originality and no concession to those wanting a less demanding task.

● Bob Wade

## PREDICTED INTEREST CURVE



Same old thing at first, then the addiction bites, but it soon passes, to leave an average game



# Now you can test your skills on Land, Sea & Air or challenge new frontiers.

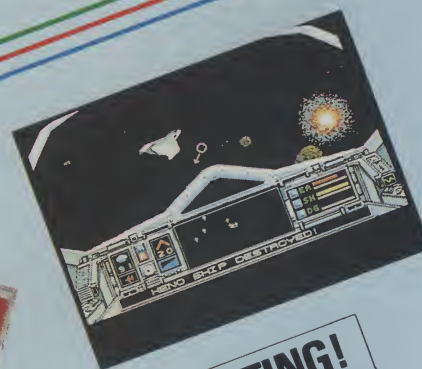
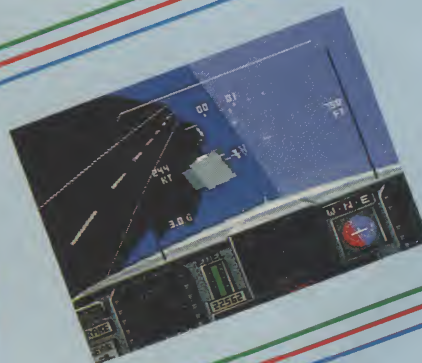
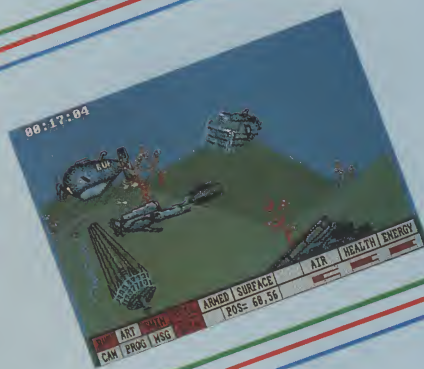
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good fun. So strap  
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go kick some alien  
backside."  
THE GAMES MACHINE.



**EXCITING!**  
**ORIGINAL!**  
**AUTHENTIC!**

Electronic Arts





# RADIANT

You simply can't get the entire system for running a Dungeons and Dragons game onto a home computer – but more and more people are having a good try. American strategy/simulation experts SSI turn their hand to the second AD&D licence, and Andy Smith checks out how well they fare.

## POOL OF RADIANCE

US GOLD/SSI start playing for keeps



*Heroes Of The Lance* may have been the first game released by SSI to carry the official Advanced Dungeons and Dragons label, but it wasn't much of a role-playing game (RPG). It had some strong role-playing elements, but the emphasis was placed on the arcade-style animated action. The second AD&D licence, *Pool of Radiance*, is however very much closer to that ever popular board game format.

*Pool of Radiance* isn't a game you can get up and running in a moment – but then that's true of most RPG-influenced software. It's also rather more intricate in structure than games like *The Bard's Tale* series, which again is not surprising – one of the criticisms levelled against AD&D itself is that the rule



Outside the City Council building in New Phlan. Right, who's for some Orc bashing?

system has become far too complex, replacing imagination with regulations at every possible opportunity. There's little danger of that in the case of *Pool of Radiance*, howev-

## INTO THE FRAY

Try as you might, you won't be able to play the game for very long without getting into a fight. Once a combat situation occurs (how you encounter the enemy determines whether you or the enemy, if any, has the element of surprise) the screen changes to show icons of your party and the opposition. The characters then move, in turn, according to their 'initiative rating' – the higher it is, the more moves they get during combat.

You can turn over control of characters to the computer or opt to make all the tactical decisions yourself. The basic types of weapon at your disposal are ranged weapons (slings, cross-bows, long bows and so on) and melee weapons (like swords, maces, and spears). Which you use depends on the type of enemy



In combat. Don't forget to bandage wounded players!



After most battles you get the chance to share out the spoils of war.

you're fighting. For example, a long sword has more effect against large opponents such as Trolls and Ogres than a broad sword would, whereas the latter is more effective against smaller opponents such as Kobolds.

The fight continues until either you kill all the enemy (or they surrender) or your party is destroyed. When a member of your party takes a severe beating, he falls unconscious and the corresponding icon disappears from screen. If another member of the party manages to bandage the injured colleague the injured colleague remains unconscious but recovers after a few days rest. Forget to bandage a wounded character and death ensues. Win in combat, and you'll divvy up the loot and weapons carried by the vanquished enemy.



# ROLE PLAY?

er, since no-one is ever going to fit ALL the AD&D system into anything under a gigabyte or two.

You start the game by creating a party of up to six characters (see Characters box) before you're given a brief tour of the city of New Phlan and left to seek fame, fortune and adventure wherever you wish.

The screen display during the majority of the game is divided into three sections. The top left of the screen is your view of your surroundings and the top right shows the names of your party members and their armour and hit point levels. The game is



In the slums. Behind this door's a party of the the meanest bunch of Orcs this side of Mordor.

## RELEASE BOX

C64/128 £14.99dk REVIEWED  
PC, ST, and Amiga formats T.B.A.

## C64 VERSION

Though the graphics may not be state-of-the-art and the sound effects dire, you'll find you soon become absorbed in the game world and you'll be playing this for months to come.

GRAPHICS 7 IQ FACTOR 5  
AUDIO 4 FUN FACTOR 8  
ACE RATING 921

controlled by selecting various options from the menus at the base of the screen.

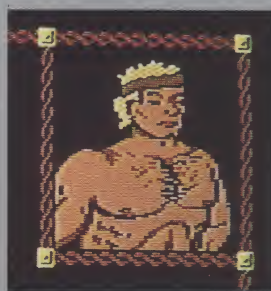
For example, by selecting a party member from the list at the top of the screen, and then by selecting the view option at the base, the screen clears to show you that character's attributes, job type and so on – plus a cameo of the character that you choose at the start of the game. Another menu gives you the option to view that character's equipment. Select the option to choose which weapons the character will have ready when entering battle. By selecting EXIT from the sub-menus, you're taken back to the main menu, where the MOVE option puts you in direct joystick control of

## DRAMATIS PERSONAE

Before you start the game, you have to create your band of adventurers creating a party of up to six characters from a choice of six races, including dwarves, elves, halflings and humans. Once you've decided on a name, race and gender for your character the computer randomly generates six ability scores. These include strength, wisdom, dexterity and charisma ratings which affect how the character plays during the game.

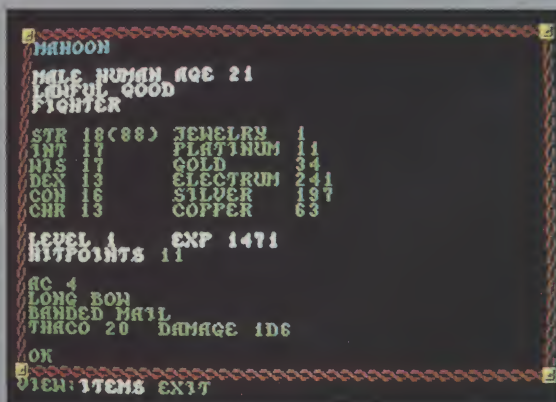
Next you have to choose a class for your character. Do you want your character to be a fighter? Magic-user? Or a combination of several such classes? Note the race of the character is important here – for example, human characters can only belong to single class, whereas dwarves and gnomes can be jacks-of-all-trades.

Finally, you must decide the alignment of the character. Alignment is the philosophy the character lives by. A character with a lawful, good alignment strictly interprets law and order and uses these principles to bring the benefits to



society. A chaotic evil character will disdain law and order, kindness and any good deeds. Once you've created your party, you can save their attributes and begin to play the game proper.

The character creation screen. Here you get to choose just what your character should look like.



Your character's vital statistics, including what weapons he/she/it is carrying, armour class and hit points.

the party and you then get a 'leader's eye view' of the surroundings as you move about the environment, interacting with its denizens.

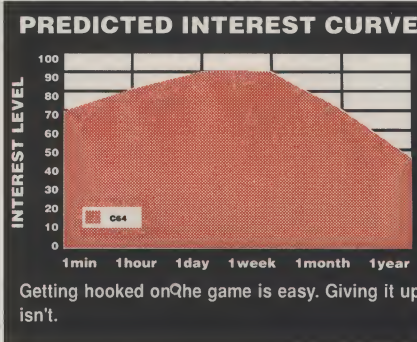
The City Council building is a good place to start looking for things to do. The Council often has work for willing bands of adventurers and they pay well for a job well done. You don't have to accept any of the jobs if you don't want to, but a good introduction to the game is provided if you elect to go and help rid the city's slums of monsters and other unsavoury characters.

Once you enter the slums, it doesn't take long before you find some nasties (see Encounters box) and battle commences. Victory means that your characters are awarded a number of experience points, which are crucial to the development of their skills and ratings. For example, fighters get stronger as they gain additional experience, magic-users can wield more powerful spells, and thieves become more adept at their art.

Occasionally you might meet non-aggressive characters in the game who may be able to give you some information, or who may ask you to do them a little service.

Whether you pay any heed to what you hear, or whether you decide to undertake extra tasks is entirely up to you.

Trying to capture the complex concept of the AD&D system on a home micro, along with the social aspects to the game is an ambitious project. SSI have gone a long way to achieving that aim and have produced an admirable RPG-influenced computer product, one that will not only please hardcore AD&D fans but will appeal to anyone looking for a game to keep them enthralled and playing for a long time to come.





# CAPONE

ACTIONWARE play da Chicago piano.

AS this point-of-view target game alternates between static indoor and scrolling outdoor scenes, your task is to shoot the gangsters who saunter onscreen or peek out from cover. Take too long and they open up with Tommy guns.

Innocent bystanders pop up occasionally, and must be avoided. Explosives also put in an appearance, with gangsters hiding behind cases of TNT

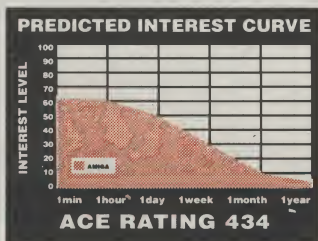
(smart thinking!) or dropping sticks of dynamite. These features and a collectable machine gun don't exactly amount to depth, but they're all you're getting.

Old style snipe-em-ups like this are a big step down from Operation Wolf or Actionware's own POW, and it's a shame to see an Amiga wasted on such shallow gameplay.

● Andy Wilton



RELEASE BOX		
AMIGA	£29.95dk	OUT NOW
ATARI ST	£t.b.a.	IMMINENT
IBM PC	£t.b.a.	PRE-XMAS



# VETERAN

A sheep in Wolf's clothing from SOFTWARE HORIZONS

THERE are three missions to complete in this Op' Wolf clone. You've got several machine guns to choose from at the start of the missions, each with differ-

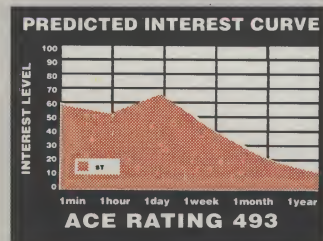
ent firing rates and ranges. The screen doesn't scroll at all - rather, the enemy come onto it from the sides. As you'd expect, you've got a limited supply of ammo and rockets with which to destroy the soldiers, tanks, helicopters and machine gun nests, but you can pick up extra supplies from the ground by shooting them.

The gameplay's slow, the digitised speech is awful and it's doubtful you'll be playing this in a year's time.

● Andy Smith



RELEASE BOX		
ATARI ST	£14.95dk	OUT NOW
AMIGA	£14.95dk	IMMINENT
No other versions planned		



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# FINAL ASSAULT

EPYX climb peaks

**THIS** first appeared way back in ACE issue 5 and was then an Infogrames game endorsed by Eric Escoffier and called Chamonix Challenge. Since then Epyx have bought the rights to the game and have apparently made some 100 changes.



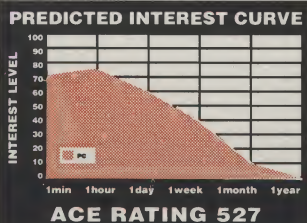
You're still left with a 'waggle the joystick to climb the mountain' game that gives you six climbs to complete (you can string up to three climbs together if you wish). You have to make sure you're using the right equipment at the right stage of the climb or you could find your climber getting into difficulties, but select the training option and on-screen prompts will tell what equipment you should be using (and why).

The gameplay has been improved but it still won't get you very excited. You'll soon be looking for new mountains to try.

● Andy Smith

## RELEASE BOX

ATARI ST	£19.99dk	OUT NOW
SPEC	£8.99cs	IMMINENT
C64/128	£9.99cs, £14.99dk	OUT NOW
AMS	Not planned	
AMIGA	£19.99	OUT NOW
IBM PC	£t.b.a.	OUT NOW



# ARTURA

GREMLIN travel through time

**TRAVEL** back to the fifth century in this magical quest to collect a series of mystical rune stones that allow you to liberate Nimue, apprentice to the vanished Merdyn who alone knows where the sacred treasure of Albion are hidden, which you need to...

And so it goes on, disguising the fact that this is really just a Black-Lamp type arcade adventure. You need to explore (and map) a series of rooms and levels searching for the runes, at the same time avoiding the deathtraps and the nasty creatures. Your vitality is reduced by

hits, but can be restored if you know where to look for the appropriate symbols.

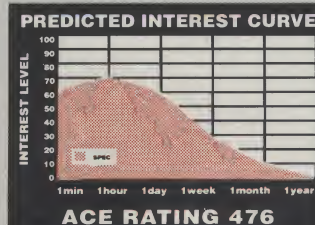
Artura is not terribly difficult, and the determined player will complete it all too soon.

● Bob Wade



## RELEASE BOX

ATARI ST	£19.99dk	IMMINENT
SPEC	£7.99cs, £12.99dk	OUT NOW
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You must rescue ARKOS, the hero of the rebellion against GREMLA, who has been imprisoned. You combat the kamikaze hordes, dodging missiles and avoiding balls of incandescent magma. Once you enter the caverns of the planet PHANTIS you fight your way through.

### STRUGGLING ON

After abandoning the ship you capture an ADREC in order to continue advancing on the planet. A dagger is the sole weapon you rely on to fend off the inhabitants. You fight against the enemy troops. You have to steal a weapon. And advance forward, straight ahead. Nothing can detain you.

### THE PRISON

You cross swamps, mountains and forests... there are enemies all over. The way to the prison becomes more hazardous the further you advance. You take command of a helicopter, descend into the entrails of the planet, and arrive at the prison. It is heavily guarded. Will you be capable of freeing ARKOS?



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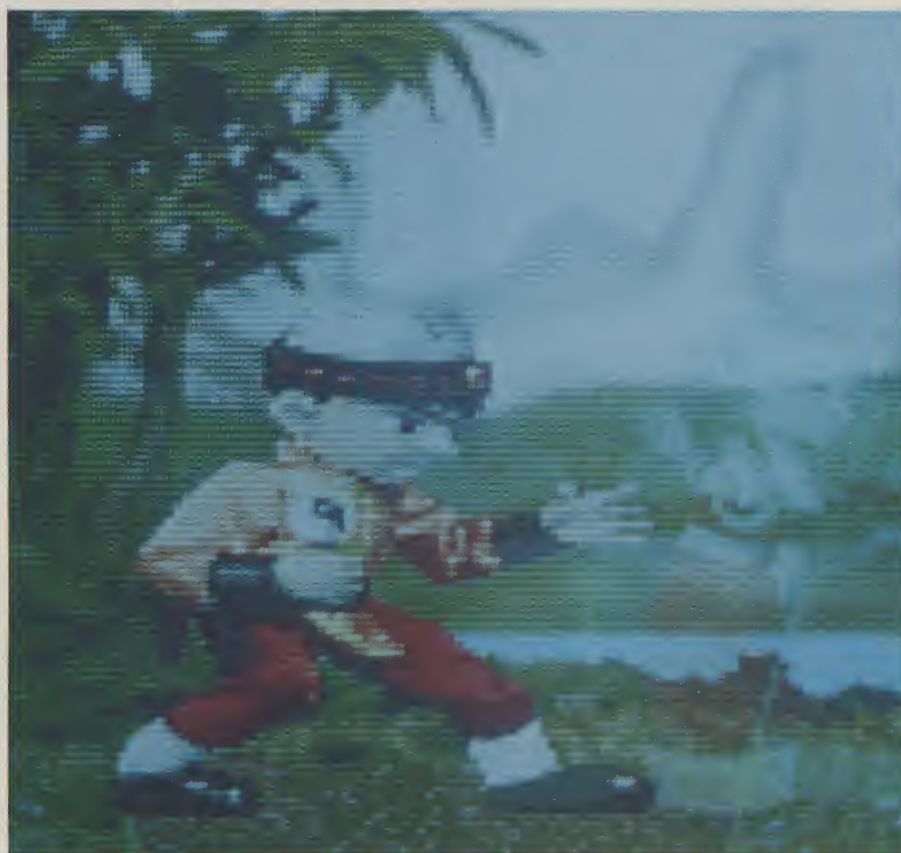




# SUSPENDED ANIMATION

Andy Smith plays with some puppets and saves a world from destruction before escaping from a prisoner of war camp and capturing some gangsters in this month's round up of what's hot and new in the arcades.

On the second stage. You're about to slug it out with Xi Tai Hou.



(Right) On stage three. That small character's a mean one!



(Below) Ooof! He's knocked you back on your heels.



And it's all over bar the shouting. Oh well, time to put some more money in the slot.



## THE LAST APOSTLE PUPPET SHOW

Homedata 30p

Don't let the wacky title put you off, this beat-em-up packs a fair old punch. The game's for one or two players and in it you try to work your way up a mountain fighting various increasingly difficult opponents. So far, so standard, but what makes this game big news is the display.

Most coin-ops have stunning sprites and backgrounds, but somehow they don't have that 'real' look to them, and at best they look like cartoons. L.A.P.S. on the other hand has stunning characters and backgrounds with a tremendous 'real-life' quality. The characters look just like the puppets you might see in a children's T.V. programme (the puppets on strings, not the glove variety). The animation of the characters is not brilliant but the shading and the backgrounds give it one of the most believable 3D displays yet.

The actual game's fun to play, and you have a wide variety of moves to use against your opponents using the standard punch and kick buttons. As in most of these types of games, how you position the joystick while you press a button affects just what move you make. Pull down on the joystick and press kick and you'll do a leg sweep, push up and kick and you'll do a high kick aimed at the enemy's head. At the start of the game it's just you versus another 'puppet', but as you progress up the mountain, the opponents become more numerous until you can be fighting off hordes of the enemy that come running at you from all directions. Don't let the puppet idea fool you into thinking the enemies are soft though, they're not and once your energy bar at the top of the screen reaches zero your head goes flying across the screen (bloodlessly, thank goodness!).

The game concept may be old hat, and the animation may leave a little to be desired, but if this is the sort of thing we're going to be seeing more of, in our local arcades then the future does indeed look bright.





Bingo! That's put paid to that end-of-level guardian.

## FORGOTTEN WORLDS

Capcom 30p

Wanna go shopping next time you're playing a shoot-em-up? This latest one or two-player Capcom offering could be just what you're after.

In the game you take control of an airborne character armed with a front firing gun, and you slowly fly over several 'worlds' shooting all the baddies that attack you from every direction. Controlling your character involves using two joysticks – the first moves your character up and down the screen while the other is one of those paddle affairs. Twist the paddle and your character rotates. Push the paddle and you start shooting.

Now, here comes the shopping bit. As you destroy certain aliens, they drop Zenny coins. Fly over these and collect them, and at various points during the game a shop will appear from the background. Fly in through the door and you can purchase your power-ups. You can, of course, opt not to buy anything but wait 'till the next stage when you'll have more Zenny coins and be able to buy some meatier weapons (that's if you survive the end-of-level guardian).

'Blast everything in sight' fans are going to enjoy playing *Forgotten Worlds*, which may not be a terribly original game, but is great fun to play.

(Left) Flying through the Egyptian stage with plenty of firepower.



Yahoo! There goes another guardian



Not quite the corner store is it?



## EXTENDED PLAY

### SCRAMBLE SPIRITS ● Sega 30p

This viewed from above, vertically scrolling shoot-em-up's set in the 21st century and gives you a small, twin-engined plane to fly. You're armed with a front firing gun, and powering up gives you a fighter escort that you can use to attack either airborne or ground targets depending on which button you press. Great fun, but again it's nothing original.

### P.O.W. ● SNK 30p

Escaping from a Prisoner of War camp's no easy task – especially when the guards know you're trying to bust out and come after you armed with knives and machine guns. The game's a beat-em-up essentially, but any armed guards you manage to overpower, you can rob. As a *Renegade* meets *Rolling Thunder* game, it's not half bad and is well worth checking out.



**P.O.W.- ready for a fight. Pick up that machine gun and you won't have to bother throwing punches (at least until you run out of ammo).**

### ASSAULT ● Namco 30p

A bit like *Vindicators* this one (see *ACE* issue 11), in that you've got two joysticks to control a tank viewed from above. You're driving through a maze-like network of canyons, and instead of turning corners you flip the tank over before powering forward again. This control method's easy to get used to and is also a handy method of avoiding the shots the enemy tanks fire at you.

### GANGBUSTERS ● Konami 30p

Large cartoon characters make an appearance in this viewed from above shoot-em-up. Some nasty bank robbers have stolen a whole wodge of cash and as a police officer it's down to you to round them up. They do have friends, though, who do their level best to stop you by shooting you, but should you see one of the bank robbers (it's not hard to spot them, they're usually sat in the middle of the road counting the lolly), you simply have to shoot them and go

pick 'em up. You then deliver them to the nearest waiting Black Maria where you'll receive a power-up. It's a tough game to play, but it is great fun.



### SKY SOLDIERS ● SNK 30p

This vertically scrolling shoot-em-up for one or two players gives you half a dozen missions to complete, each set in a different country and time period. You're flying a spaceship and the enemy craft reflect the country and time period you're fighting in – doodlebugs appear when you're fighting over 1945 Germany, and monoplanes and biplanes show up in 1914 France.

Extra weapons are given to you at the start of each mission, and you have a choice of several, including homing missiles and 'busters'. You only have limited amounts of extra weapons though, so make sure you save some for the end-of-level guardians!

### CABAL ● Tad/Electrocoin 30p

It's not long before an original idea spawns a batch of clones. This one's an *Operation Wolf*-type game for one or two players. You don't get a machine gun mounted on the front of the cabinet however, but a trackball to whizz the sights around the screen, picking off the baddies as you go.



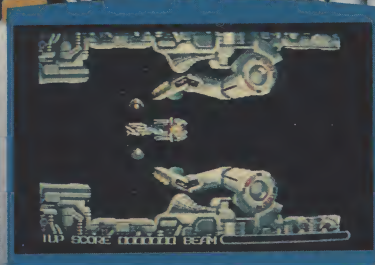
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Atari ST screen shot



Commodore screen shot



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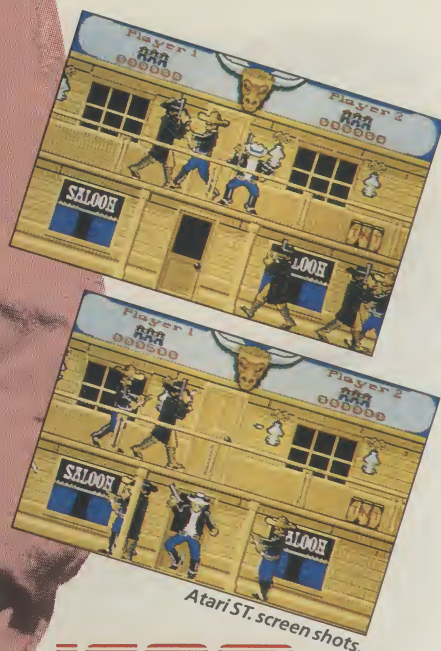
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A LEGEND IN GAMES SOFTWARE



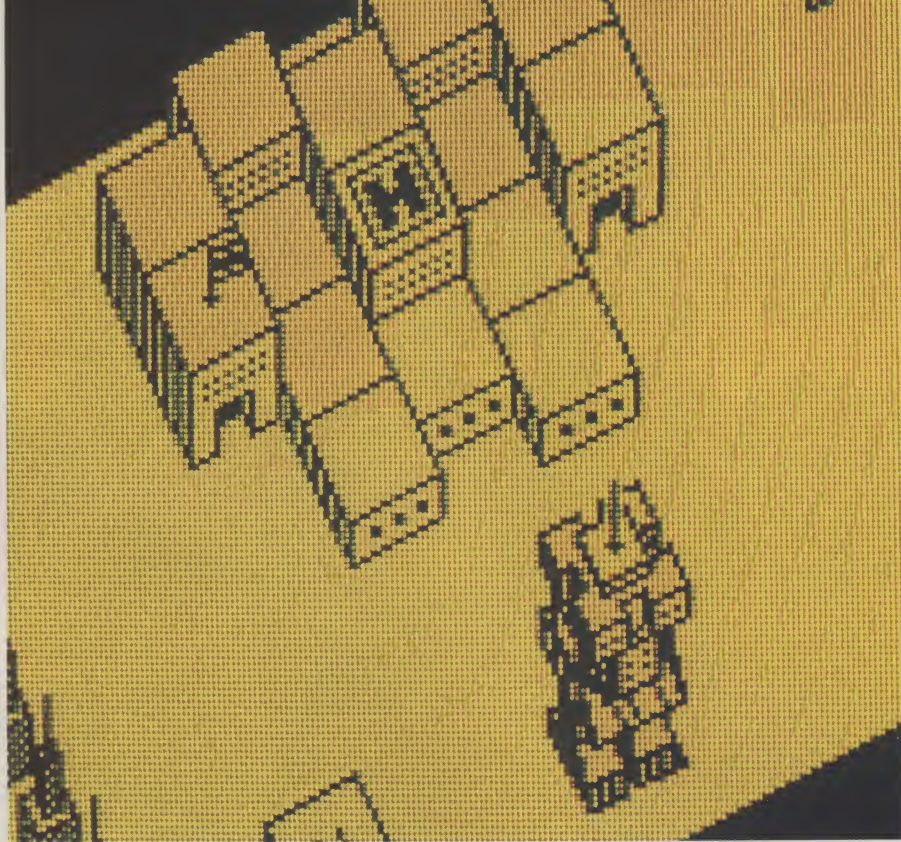
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**T**ired of dumb opponents? Bored by all those electronic thump-puppets that just wander into your field of fire? Well so you should be. Just because modern nasties move in slightly more complex patterns than the *Space Invaders* of yesteryear doesn't mean they're interesting. If the bad guys are brainless, they aren't really bad guys at all - just targets, obstacles or timing problems to be dealt with.

Unfortunately, once you get beyond Invaders-style 'canned' behaviour you can turn up some thorny programming problems. Even where coders are feeling adventurous, they rarely go beyond a mixture of canned and homing behaviour just because these are the simplest patterns to program. Random elements can make homing slightly more interesting, but the bad-guys remain rather predictable.

The next step after homing is evasion. At its simplest this is just the homing routine used in reverse: so it was in *PacMan* once you'd eaten power pills, and in *Spore* when you activated your repulsors. This was a fairly minor improvement on total stupidity, but better things are possible with a little more effort.



**Nether Earth (Amstrad)**, a sugar-coated wargame where you could see the results of your orders in real time, isometric 3D form. If the ordering system had been a little more complex, you'd have had some really smart robots to work with.

# GET SMART

What if games were packed with nasties that could think for themselves? What if you could program your own forces to attack intelligently? What if programs could actually slug it out for control of your computer? Andy Wilton looks at how artificial intelligence and programmability could change the face of gaming.

## ARTFUL DODGERS

As early as *Elite*, bad guys were weaving and dodging to try and stay out of your gun-sights: flight sim Messerschmitts and MiGs have been similarly slippery ever since. In *Alien Highway*, Costa Panayi gave us bad guys who could actually duck (telescope their necks in fact!) to avoid your Vorton's bullets, while in *Virus* David Braben came up with a real mixed bag of behaviour patterns. It's bad enough when pests 'viff' out of your

line of fire, but the way the game's mutants and fighters work at getting a height advantage is positively unpleasant. Be warned, complex behaviour patterns can make things uncomfortably difficult!

There's still a lot of ground to be covered. Even complex behaviour patterns can be figured out, and an effective countermeasure found. Work at it long enough and you'll still be able to find the Achilles' heel of the bad guy's tactics - and once you've done that the

game turns into a turkey-shoot. The same technique works against the nasties time after time, so the tactical challenge evaporates.

This is the 'dead hand' problem rearing its ugly head. The bad guy behaviour patterns may be intricate, but they're also fixed. The only intelligent opposition you've got is the programmer, and when you figure out a way to beat him he has no way of responding (or not without publishing a sequel, at any rate). Here at ACE we've always been keen on multi-player games as a way round this problem, but there could be another answer.

As suggested briefly in *Aliens Alive* (ACE issue 8), there's no reason why bad guy tactics shouldn't develop to cope with any killer techniques you use. *Aliens Alive* suggested doing this by an evolutionary process, so that future waves of aliens would be shaped by whichever ones survived longest this time round. In practice that probably wouldn't be the best way of doing things. Techniques used in certain experimental chess and draughts programs ought to let arcade nasties learn quickly from their comrades' mistakes, while building up a long-term knowledge base on what tactics seem to work best against you.



**Carrier Command (ST)**. You can set a destination for your Walrus amphibious tanks, but you can't tell them what to do when they get there - so massed attacks, coordinated bombardments and simultaneous air cover are all out of the question. A higher level of command system would allow games with whole fleets of ships in them.



## HELP WANTED!

Once the bad guys start getting smart, you'll have to wise up too. If you're all alone against a vast horde of high-IQ aliens you clearly aren't going to last long. You'll need help, and it had better be intelligent help.

Of course, if a games author can make your opponents brainy he can do the same for your helpers, but that may not produce a game most people would want to play. After all, if your buddies are doing half the work you may not feel very involved in the proceedings. Far better if their intelligence is part of your game effort: if you've programmed them, that is.

Don't panic - we're not talking about learning machine code and writing your own routines (though that can make an excellent game in its own right: see the *Core War* box). In fact, programmable helpers would only be a slight advance on the sort of order-issuing you get in games already on the market.

In last year's Argus Press (now Grand Slam) game *Nether Earth* you could order your robots to attack enemy droids or installations. It wouldn't be going that much further if you could give them secondary tar-



**Cyrus Chess (PC): could techniques from intelligent games like this help make shoot-em-up aliens smarter?**

guage would let you do this, and it would have other advantages as well. For one thing it would help prevent God's-Eye View, the problem whereby a wargame commander can get information that a real-life commander wouldn't have access to. Another example in the same carrier wargame should illustrate this point a little more clearly.

## RADIO SILENCE

You've sent out reconnaissance planes to search for the enemy carrier group. If you find it you can attack with aircraft, shell it

from over the horizon or pass on the news to your own submarine flotilla. In real life, especially in WW II or some similar period, you'd only get the results of the search when the recon planes got home safely. If they were downed by flak, exceeded their endurance or simply couldn't find their mother ship again, you'd never know a thing about it.

Clearly this knowledge limitation won't translate very well to a home micro if you actually have to control the recon planes yourself. The planes may get shot down, but you'll have seen the carrier group yourself and can act accordingly. Programmable forces could carry out complex commands, while at the same time maintaining the 'Chinese walls' necessary to prevent you finding out too much, too early.

Of course, this needn't mean that you miss out on all the action. A 'de-briefing' phase afterwards could let you watch highlights of each mission - reconnaissance or gun-camera film in real life - and give details of how your orders were put into practice. This would serve the additional purpose of letting you see what the shortcomings of (or even bugs in) your orders were, so that you could improve your programming style in future. ●

# ART!

gets for any spare munitions they have left afterwards, or set damage levels beyond which they should retreat for repairs. Throw in standing orders on what to do if they encounter obstacles or come under enemy fire en route, and you've got the beginnings of some serious smarts - and it's all your own work too!

## PLANS OF ATTACK

Building programmability into a game could transform our notions of what gameplay is all about. Imagine a few possible scenarios.

Take a task-force wargame in the style of *Carrier Command*, for example. You form up a bombing group to attack enemy shipping, but you don't actually want to have to command the mission personally. If the game's running in real time you might well have to repulse an attack on your own fleet, organise anti-submarine patrols or prepare for the amphibious landing you'll be making soon.

The problem is, you're sending those bombers out to attack a moving target - enemy warships don't normally sit at anchor obligingly waiting to be sunk - so you're not quite sure where it'll be when they catch up with it. What's more you don't know how strong the anti-aircraft fire will be, precisely what sort of ship they'll be attacking, whether they'll run into an enemy combat air patrol or any number of other important factors.

What's needed is some system whereby you can give detailed orders covering different eventualities. A simple programming lan-

## CORE WAR

It's a programmer's nightmare: you write a piece of code, it looks like it ought to run perfectly and yet it keeps crashing. Could there be some malign intelligence at work in the machine - an enemy program sowing the seeds of chaos? If the answer's yes then you must be playing *Core War*, one of the most bizarre and intriguing computer games ever devised.

Though *Core War* does have a certain air of *Battleships*, or possibly of *Sentinel* with the lights turned off, there's a crucial difference. Unlike either of these - or almost anything else - *Core War* isn't actually a game that humans can play. The contestants in each bout are programs: all your effort goes into writing a program clever, brutal or lucky enough to make its opponent crash.

Developed in Canada ten years ago, *Core War* is little known nowadays. It revolves around a tiny area of memory deep inside a fictional mainframe. The area or 'core' is just 8000 locations in size, but that's plenty big enough for its only real function: as a battlefield. When the game commences, two programs load into the core at random positions. The electronic cockfight that follows can be viewed onscreen: watch helplessly as your marvellous piece of coding founders, or cheer manically as it

rips the enemy's data area apart!

Writing a successful *Core War* program is a tricky business. When the fictional mainframe's operating system 'MARS' - actually a simulator running on your machine - loads the two programs into core memory, neither knows where the other is. Time is of the essence: MARS multi-tasks between the programs, executing instructions from each alternately, so a *Core War* game is a race to see which program can disrupt the other first.

*Core War* programs can do almost anything. They can build copies of themselves elsewhere in memory, repair themselves when damaged or even modify their own logical structure, if you're a sharp enough programmer to write them that way. This kind of irregular behaviour is possible because *Core War* programs are all written in a special language called *Redcode*.

*Redcode* is very like an assembly language, so each of your program's instructions can also be considered as data. This lets your program copy or change itself freely but it lets the enemy program change it too. The standard aggressive tactic is to strew memory with illegal instructions which MARS will refuse to execute: if one of these drops in an

enemy program's lap, it'll crash and your program will have won. If your program copies itself over an opposing piece of code or data, that may do the trick just as well.

Rather like objects in *Life* (see *Aliens Alive*, ACE issue 8), successful *Core War* programs are given names by their creators. The classic ones tend to be extremely short, so as to present the smallest target possible. The highly aggressive *Dwarf* is only four-lines long, and given time will destroy any longer program that doesn't either copy or repair itself. Smaller still is *Imp*, a one-line self-replicator that's hard to destroy and will, in due course, wipe the whole of memory.

Slightly larger programs can defend themselves against such unsavory onslaughts. The cleverly designed *Raidar* positions 'pickets' - large areas of cleared memory - either side of itself, so that it can detect approaching attacks and relocate itself out of danger. *Scanner*, another defensive classic, keeps copies of itself, transferring control to them when the original is threatened. As the arms race accelerates, nastier attackers come out of the woodwork. Mutant versions of *Dwarf* can get very vicious indeed, while the longer *Imp*-style replicators *Juggernaut* and *Bigfoot* also pose tough problems.



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# CAPCOM™

Screen shots from various systems.

## GIANTS OF THE VIDEO GAMES INDUSTRY

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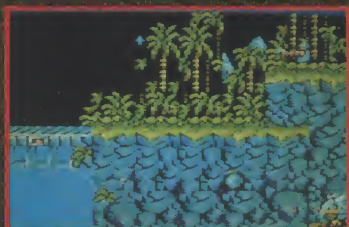


# CRUCIAL COMPILATION



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LAST NINJA replicates C.CARS on C64



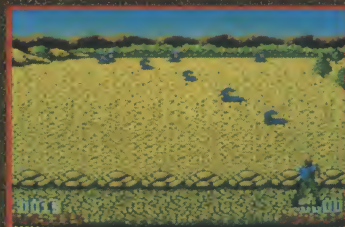
**PREDATOR** You've heard about Predator, the Schwarzenegger movie – now you can play the leading role. Take a crack commando unit into the South American jungle to rescue a bunch of trapped diplomats. Should be easy enough...and so it would be, if it weren't for the mysterious alien who keeps taking out your men.

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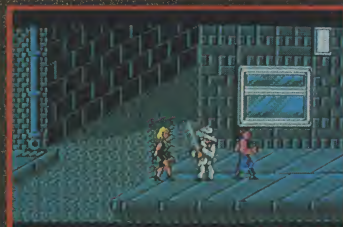
**KARNOV** Join Karnov, the fire-breathing Russian strongman, on his hazardous quest to defeat the evil dragon Ryu and find the Lost Treasure of Babylon. Karnov is a vast 4-way scrolling game that combines both strategy and fast action in nine challenging levels of gameplay. It is recognised by arcade addicts everywhere as one of the best games of its kind. Karnov also has something special in the way of characters – have you ever been killed by a skeleton on an Ostrich?

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This month the Cowled Crusader takes a critical look at Lancelot, brings you the Paladin's guide to Lords of Time, plus the final instalment of the Pawn solution. All that, plus more reviews, hints and tips from the country's premier adventure reviewer...

### LANCELOT ST SCREENSHOT



> pictures

Lancelot was in Arthur's echoing hall. Hundreds of wall torches gave a flickering gold glow to the room, making it seem welcoming despite its size. Lancelot could see Guenever, Sir Kay and King Arthur. Sir Kay grovelled backwards towards the exit. King Arthur said, "Welcome to Camelot, Lancelot. Merlin has foretold that you are fated to become the greatest of all knights. We are honoured to have you at our court".

Lancelot on the Amiga

# LANCELOT

## LEVEL 9/MANDARIN's Holy Grail?

**THIS** game has been expected for some months now. Following Level 9's rift with Mandarin, it seems likely that Lancelot will be the last Austin adventure produced under that label. What sort of epiphany does it offer?

A pretty dodgy one, I'm afraid. Last month we saw Ingrid's Back, developed after Lancelot, and although I wouldn't normally put gnomes before knights, I would in this case. This is a disastrous disappointment because the Arthurian scenario is surely one of the great opportunities in adventuring. Even that awful old game Quest for the Holy Grail, with its exploding rabbits and Nic-ing knights, managed to borrow a little lustre from the days of Lancelot and the Round Table.

Level 9 have made some pretty tough

claims for this game. They are on record as saying it is their 'best yet', and furthermore we have been informed that Pete Austin is an expert on Arthuriana. To a certain extent these claims do have some substantiation in the game. To start with, the locations have an undeniable air of authenticity about them, as do the characters of the various knights and the occasional flourishes of early English prose.

So what's the problem? Simply that the game, while superlative for certain brief moments, keeps getting spoilt by apparent carelessness and poor design. For example, the characters are great and - as in Ingrid's Back - lead interesting lives that greatly enhance the atmosphere of the game. However, they also have sloppy speech tendencies that do not do much credit to anyone, least of all themselves.

For example, it's quite amusing when the Damosel Maledisant says to Lancelot, who is carrying a hot cauldron, 'Bet you drop it!'. It is not amusing, however, when she says it again after he's put it down. At other times, the characters' responses and outbursts appear even more illogical. Even an innocent suggestion to Arthur can get you the reply 'Don't bother me with that! I am the king!' (or words to that effect), which may amuse once, but never again. Once suspects that the character is simply saying 'I don't understand', in which case

# P I L G R I M

ADVANCED COMPUTER ENTERTAINMENT

why not be more direct?

However, all this can be forgiven when you find characters engaged in interesting activity or, for once, replying with convincing relevance. You can also forgive the poor graphics on some versions (see screenshots for some idea of the variety here) because